

## INDEX OF AUTHORS

Abildskov, J. A., 286, 418  
 Aguirre, C. V., 520  
 Aikawa, J. K., 891, 897  
 Albert, R. E., 1047  
 Alcock, A. J. W., 986  
 Amram, S. S., 69  
 Antal, B. B., 1043  
 Askovitz, S. I., 1005

Bailey, F. R., 921  
 Baker, R. R., 82  
 Baldomir, J. M., 520  
 Bassett, S. H., 630  
 Bean, W. B., 1, 185  
 Beazley, H. L., 96  
 Bellet, S., 397  
 Bergy, G. G., 207  
 Bernstein, A., 52  
 Bernstein, L. M., 353  
 Bing, R. J., 635  
 Black, H., 955  
 Black, H., 974  
 Bosher, L. H., 247  
 Boyd, R. S., 625  
 Brandenburg, R. O., 994  
 Brandfonbrener, M., 557, 567  
 Braunstein, J. R., 432  
 Braunwald, E., 69  
 Brink, A. J., 604, 612  
 Briller, S. A., 838  
 Brown, J. W., 819  
 Bruce, R. A., 207  
 Bruwer, A. J., 807  
 Burch, G. E., 418  
 Burell, H. B., 1068  
 Bussan, R., 271, 620

Callahan, J. A., 994  
 Campeti, F., 199  
 Canabala, E. J., 520  
 Clark, L. C., 813  
 Conn, H. L., Jr., 1043  
 Corbascio, A. N., 588  
 Courmand, A., 7, 507  
 Creech, O., Jr., 193  
 Cronvich, J. A., 418

Dailey, R. E., 625  
 Denolin, H., 215  
 Deterling, R. A., Jr., 30  
 Deutsch, L., 108  
 Dickes, R., 108  
 Dickson, J. F., 955  
 Dighiero, J., 520  
 Dillon, R. F., 827  
 Dimond, E. G., 124  
 Dorset, V. J., 169  
 Dotter, C. T., 1034  
 Doyle, A. E., 543, 974  
 Drumm, A. E., 169  
 Duncan, L. E., Jr., 90

Eddleman, E. E., Jr., 278  
 Edson, J. N., 108  
 Eichna, L. W., 1047  
 Eisenstein, B., 903  
 Ellisberg, E. I., 827  
 Ellis, F. H., Jr., 807  
 Erickson, E. E., 193

Farr, L. E., 1043  
 Feder, W., 1005  
 Feil, H., 242  
 Feldman, H. S., 52  
 Ferraru, F., 247  
 Ferrer, M. I., 7, 507  
 Field, H., Jr., 625  
 Fitz, R. H., 897  
 Flamm, G. H., 108  
 Flynn, J. E., 921  
 Frank, E., 406

Gaertner, R. A., 82, 259  
 Gibson, J. F., 64  
 Gittinger, W. C., 620  
 Godden, J. O., 963  
 Goldberg, B., 338  
 Goldfarb, M., 271  
 Goldman, R., 636  
 Gordon, A. J., 69  
 Gramiak, R., 199  
 Gregg, D. E., 383  
 Griffith, G. C., 1180  
 Gunnar, R. M., 827

Hansen, A. T., 981  
 Harken, D. E., 955  
 Harrison, W. K., Jr., 577, 845, 1022  
 Harvey, R. M., 7, 507  
 Heath, D., 819  
 Helmsworth, J. A., 813  
 Henderson, C. B., 858  
 Hickam, J. B., 64  
 Hicks, W. M., Jr., 193  
 Hildes, J. A., 986  
 Himmelstein, A., 7, 69  
 Hines, E. A., Jr., 963  
 Horan, L., 418  
 Hull, H. B., 60  
 Humphreys, G. H., II., 30  
 Hupka, K., 426

Iseri, L. T., 1057  
 Ivy, A. C., 353

Joffe, S., 242  
 Jones, J. C., 1180

Kaplan, S., 813  
 Katz, L. N., 448  
 Kaufman, J. G., 52  
 Kay, C. F., 116, 291, 406  
 Keisman, R. A., 406  
 Keith, J. D., 230  
 Kirklin, J. W., 807  
 Klosk, E., 52  
 Knowles, J. L., 278  
 Kossmann, C. E., 838  
 Kowalski, H. J., 207  
 Kriz, J. R., 250  
 Kuschner, M., 7

LaDue, J. S., 161, 795  
 Lambert, A., 7  
 Landowne, M., 557, 567  
 Lasser, R. P., 69  
 Lequime, J., 215  
 Lerner, R., 176  
 Lev, M., 176

Mader, I. J., 1057  
 March, H. W., 869  
 Marchand, N., 838  
 Mathewson, F. A. L., 44  
 Morita, Y., 1057  
 Morris, G., 96  
 Morris, G. L., 432  
 Morris, L. E., 553  
 Moscovitz, H. L., 69  
 Moyer, J. H., 96

Neill, C. A., 604, 612  
 Nydick, I., 161, 795

Oblath, R. W., 1180  
 Olch, D., 1  
 O'Neal, R. M., 370  
 Orgain, E. S., 361  
 Oser, B. M., 60

Palou, J., 239  
 Pedersen, E., 588  
 Pick, A., 903  
 Ponseti, I. V., 185  
 Porter, R. R., 247, 250  
 Purcellas, J., 520

Ramsey, G. H., 199  
 Rast, C. L., Jr., 361  
 Ravitch, M. M., 69  
 Read, J. L., 247, 250  
 Rhyne, M. B., 891  
 Richards, D. W., 7, 507  
 Richman, S., 247  
 Rodbard, S., 448, 883  
 Roth, G. M., 963  
 Rötta, A., 333  
 Rewe, R. D., 230  
 Ruskin, H. D., 338  
 Russek, H. I., 169  
 Russi, S., 250  
 Ryan, J. M., 60

Sapin, S. O., 69  
 Sayen, J., 321, 530  
 Seiden, G. E., 406  
 Schaberg, A., 986  
 Scherf, D., 271, 620  
 Schieve, J. F., 60  
 Schild, A., 1005  
 Scott, H. W., Jr., 813  
 Sheldon, W. F., 321, 530  
 Shock, N. W., 557, 567  
 Sieker, H. O., 64  
 Smirk, F. H., 543  
 Smith, W. W., 1047  
 Snyder, H. B., 193  
 Stahlman, M., 813  
 Starr, I., 588, 1005  
 Starzl, T. A., 82, 259  
 Stein, I. D., 833  
 Stollerman, G. H., 795  
 Stone, W., 883  
 Storm, O., 981  
 Surawicz, B., 397  
 Suzacq, C. V., 520  
 Suzman, M. M., 338  
 Swan, H. J. C., 994  
 Swell, L., 625

## INDEX TO AUTHORS

Talbot, S. A., 577, 845, 1022  
Tang, J., 795  
Taubenhaus, M., 903  
Theilen, E. O., 383  
Thomas, W. A., 370  
Tobin, M., 108  
Torin, S., 620  
Trout, E. C., Jr., 625  
Tucker, W. T., 278  
Urbach, J. R., 397

Vakil, R. J., 220  
Van Horne, R. G., 397  
Vlad, P., 230

Wallyn, R. J., 827  
Watson, J. S., 199  
Weinberg, H. B., 1  
Weinberg, S., 199  
Weingarten, W., 169  
Weiss, F., 52

Wenger, R., 426  
Wessler, S., 553  
Whitaker, W., 819  
Wiek, E., 426  
Wilson, H. E., III, 955  
Wolfert, C. C., 321, 530  
Wróblewski, F., 161, 795  
Wylie, R. H., 7

Zohman, B. L., 169

## INDEX OF SUBJECTS

(Page numbers in *italics* refer to abstracts)

**Acetazolemide**  
and diuresis, 722  
hemodynamic changes after, 938  
single oral dose of, in renal disease, 1096

**Acetylcholine**, and ventricular fibrillation due to cooling, 620-623

**Acetyl digitoxin**, 117, 123  
clinical evaluation of, 690  
dosage, for initial and maintenance therapy, 297, 301

**Acetyl strophanthidin**, 118, 122  
dosage, initial and maintenance, 297  
potential lethal hazard, 298  
response to, 793

**Acetyltanghinin**, and epinephrine action of, in respiration of heart muscle slices, 310

**Acidosis**  
ammonium chloride, 1098  
diabetic, hyperpotassemia of, electrocardiography in, 678  
hyperchloremic, in refractory edema due to congestive heart failure, 1087  
respiratory, 314-315  
renal response to, 1096

**Aconitine**, auricular fibrillation induced by, 621

**Acrosclerosis**, with arteritis, 1066

**ACTH**. *See* Corticotropin

**Adams-Stokes syndrome**  
complete atrioventricular dissociation studies in, 729  
molar sodium lactate in treatment of, 678  
sympathomimetic drugs for, cardiac rhythmicity and conduction after, 794

**Addison's disease**, basal metabolic rate in, 311

**Adenosine triphosphate**, and digitalis, 120  
and electrical response of myocardium, 1100  
irreversible cardiac depression of, in rat, by quinidine, 767  
role of, between exergonic and endergonic functions, 635

**Adrenalectomy**  
cardiac output after, in parabiotic and single rats, 141

**Adrenal gland**  
carcinoma of, superficial phlebitis in, phenylbutazone for, 835  
hypertension and cardiovascular-renal lesions during regeneration, in rat, 776  
influence of, on water and electrolyte disturbances following nephrectomy, 310

**Adrenalin**  
and sinus arrhythmia in atrioventricular block, 143

and T-wave, in anxiety state, 136

**Age (of mother)** and congenital cardiovascular malformations in infant, 649

**Age (of subject)**  
and arteritis of aortic arch, 1067  
in ballistocardiography  
and nitroglycerine, 588-601  
three-plane, 869-881  
and blood cholesterol levels in South African Bantu with low fat intake, 949  
and cardiac output, 557-565, 567 and circulation performance, 567-575  
and determinations of direct-indirect blood pressure, 972  
and digitalis tolerance, 708  
electrocardiogram in persons over seventy, 704  
endocardial fibroelastosis in adult, 935  
and heart performance, 567-575  
and heart work, 569, 570, 1006-1020  
and hypertensive blood pressure, 209-213, 569-572  
in heart disease, after sixty-five, 747  
and hexamethonium, 545  
and isolated ventricular septal defects, 1085  
and mitral commissurotomy, thromboembolic complications due to, 983  
and myocardial infarction  
and body weight, 211-213  
mortality due to, 207-213  
non-fatal, after sixty, 765  
and pulmonary artery resistance, 1086  
response and tolerance of digitalis preparations, 708  
in spatial vectorecardiography, 286-290  
and simultaneous direct-indirect blood-pressure determinations after cold pressor tests, 972  
and tetralogy of Fallot, atypical, 230-237

**Aglucone**, 116-117

**Albuminuria**, in congestive heart failure, 769

**Alcohol**, and cardiovascular diseases, 1097

**Aldosterone**  
and ACTH, 697  
control of secretion, 697

**Aldosteronism**, primary, 1093

**Alkaloid**, in Rauwolfia, as hypotensive agent, 220-225

**Alkamine**, synthetic steroid, and auricular fibrillation, 142

**American College of Chest Physicians**, Committee on Car-  
diovascular Research, award offer, 1114

**American Heart Association**  
annual meeting, 154, 317, 659-664  
program committee, 668  
schedule, 663-664  
appointment of assistant medical director, 1113-1114  
audio-visual kit on the "Role of the P-A Film of the Chest in Cardiology," 319  
Bio-Sciences Information Exchange, 1114  
booklet—"The American Heart Association Serves the Physician," 318  
Brown Lecture, 659  
"Cardiac Clinics" series, 319  
"Cardio-Views," 319  
cardiac emergency kit, 953  
"cardiac-in-agriculture" study, in Iowa, 1111  
Cardiovascular Nursing Advisory Service, appointment of nursing consultant, 1114  
Circulation Research, associate editor named, form expanded, use of Interlingua, 1113  
Columbian Society of Cardiology, 953  
Committee on Auscultatory Phenomena, 478  
Conner Memorial Lecture, 477, 659  
Council for High Blood Pressure Research, 476, 477  
annual meeting, 664  
book on 1954 proceedings, 478  
Council on Community Service and Education, 317, 476, 477, 661, 666  
second annual meeting, 317, 666  
Council on Rheumatic Fever and Congenital Heart Disease, 317, 476, 661, 666  
courses  
cardiography, 952  
electrocardiography, 155  
fluid and electrolyte balance, 952-953  
exhibits, 317, 477, 659  
fellowship awards, 153  
Fifth Inter-American Congress of Cardiology, 953  
Gold Heart Awards, 1112  
grant awards, 153  
grants-in-aid, 154  
list of continued, 156  
list of new, 157-160  
Halsey, R. H., obit., 952  
Heart Fund campaign, 1113  
"Heart Models and Silhouettes," 319  
Heart Sound Tape Library, 478

**American-Heart Association**  
(Cont'd)  
joint session, Council on Community Service and Education and Council on Rheumatic Fever and Congenital Heart Disease, program, 666  
Jones Criteria (modified) for Guidance in Diagnosis of Rheumatic Fever, 951  
Jones Memorial Fund, 952  
meetings, 154-155, 320, 479-480, 1114  
Modern Concepts of Cardiovascular Disease, new editors, 318  
new officers, 1112  
New York Heart Association Fellowships, 479  
nursing consultant, 952  
Registry of Cardiovascular Pathology, 478-479  
Rehabilitation, 477  
rheumatic fever prevention control study launched, 1111  
Scientific Council Committee on Auscultatory Phenomena, interim report of, 114-115  
Scientific Sessions, *see* annual meeting  
Second European Congress of Cardiology, 665  
Section on Basic Science, 476  
Section on Cardiovascular Surgery, 476  
Section on Circulation, 476  
Section on Clinical Cardiology, 476  
Seventh Annual Symposium on Heart Disease, 479  
Symposium on Arteriosclerosis, 154-155  
Third World Congress of Cardiology, 953  
Twenty-Eighth Scientific Sessions, 154, 659  
abstracts of proceedings, 675-794  
program of, 668-674  
Vermont Heart Association, 319  
**American Society for the Study of Arteriosclerosis**  
Committee on Nomenclature of Report on Tentative Classification of Arteriopathies, 1065-1067  
ninth annual meeting  
abstracts and proceedings of, 481-505  
program of, 481-505, 506, 665  
**Amine**, sympathomimetic, cardiac rhythmicity and conduction response to, 794  
**Amino acid**  
metabolism of, 637-646  
in myocardial ischemia, 758  
**Aminophylline**  
and coronary insufficiency, 938  
diuretic potency of, in congestive heart failure, 1086-1087  
and electrolyte output, 722  
suppositories, effectiveness of, 693-694  
**Aminopropionitrile, beta**,  
lesions produced by, 948  
toxicity due to, and dissecting aneurysm, 191  
**Ammonium chloride**  
and thermol sweat, electrolyte composition, 1101  
**Amyl nitrate**, in ballistocardiography, 590  
**Amyloid**  
primary, of heart vs. constrictive pericarditis, 827-832  
**Amyloidosis**  
associated with cardiae involvement vs. constrictive pericarditis, 827-832  
systematized, with multiple myeloma, 935  
**Anaphylaxis**, cardiae, 730  
**Anastomosis**  
aortocoronary sinus and changes in coronary circulation, 133  
intercoronary collateral, 133  
splenorenal arterial, 725  
**Anemia**, and use of digitalis, 293  
**Anesthesia**  
and cardiac output  
by cuvette oximeter under cyclopropane - oxygen and ether, 1103  
thiopental and pentobarbital sodium, of dog, 791  
**Aneurysm**  
aortic  
abdominal, 702  
arch, traumatic, 1072  
due to beta-aminopropionitrile, 948  
dissecting, 191, 1068-1075  
during pregnancy, 950  
resection for, 947  
aortic sinus, 700  
with coarctation of aorta, 1087  
congenital, rupture of, 825  
cerebral, and coarctation of aorta, 1082  
intracranial arterial, 950  
popliteal, operative management of, 742  
and poststenotic dilatation, 1096  
proximal and coarctation of aorta, 1082  
traumatic, hazard of undue delay in surgical treatment of, 752  
of Valsalva sinus, rupture of, 819-825  
**Angiitis**,  
necrotizing  
ACTH for, 917  
cardiovascular manifestations of, 911  
**Angina**  
and choline theophyllinate, 653  
pectoris  
ballistocardiogram in and nitroglycerine, 588-601  
and choline-theophyllinate, 676  
and coronary artery disease, 654, 790  
de-epicardialization for, 955-961  
in euthyroids, radioiodine for, 937  
vs. intermediate coronary syndrome, pain in, 654  
lipemia-induced, relief of, by intravenous heparin, 735  
pentaerythritol tetranitrate in treatment of, 1099  
Peritrate for, 938  
and tobacco-smoking, 316  
triethanolamine trinitrate for, long term study of, 720  
**Angiocardiogram**  
half-wave rectification, 1037  
in mitral stenosis, before and after mitral valvotomy, 178  
venous, in atypical tetralogy of Fallot, 232, 233  
**Angiocardiography**  
absence of right pulmonary artery discovered by, 651  
cardiac catheterization, report from heart station in private hospital, 747  
in cardioaortic fistula, 824, 825  
in congenital malformations of heart, cyanotic types of, 710  
in echinococcal disease of left ventricle, 525, 528  
in occlusive auricular thrombi, 247-249  
pressure of, vs. pressure in superior vena cava, right atrium and ventricle, 934  
radiographic techniques for cardiovascular, 1034-1041  
in Taussig-Bing syndrome, 306  
toxic factors in, 751  
**Angiotonin**, pressor responses to, in hypertension, 543-551, 974-979  
**Anoxia**  
irreversible, and hypothermia, 129  
myocardial  
and myocardial metabolism, 641  
serum glutamic oxaloacetic transaminase content in, 749  
pulmonary edema, precipitation due to, 654  
**Antibiotics**  
for rheumatic fever, 941, 945  
and rheumatic heart disease in children and youth, 944  
postcardiotomy syndrome, 696  
**Anticoagulant**  
in cerebrovascular disorders, 775  
in coronary artery disease, 750  
insufficiency, 938  
Dicumarol, 145, 553-555, 652, 656, 688, 720, 748, 784, 938, 981-985  
heparin-like, 648  
and similar polyanionic compounds, 774-775  
4-hydroxycoumarin, 771  
in ischemic necrosis of myocardium, 1088  
mitral commissurotomy during prophylaxis with, 981-985  
in myocardial infarction, 14  
current dispute of, 306

long term therapy, 745  
long term therapy, survival rates after, 731-732  
in management of, 656, 720  
therapy  
control of, standardized clotting time in, 688, 748  
myocardial rupture and hemopericardium, associated with, 309  
Tromexan, 648, 656  
in venous thrombosis, in dogs, 553-555

**Antidiuretic hormone**  
and diuresis following oxygen therapy in congestive heart failure, 652  
secretion of, in response to noxious stimuli, 1105

**Anuria**, reversible, management of, 1095

**Aorta**  
absence of arch and patent ductus arteriosus, 1082  
unilateral clubbing of fingers due to, 649  
aneurysm of abdominal, 702  
arch, traumatic, 1072  
due to beta-aminopropionitrile, 948  
dissecting, 185-192, 1068-1078  
during pregnancy, 950  
resection for, 947  
anomalies of, electrical axis in fifty two patients with, 610  
arch of  
arteritis in young or middle aged women, 1067  
resection of, using vessel couples, 710  
right, in atypical tetralogy of Fallot, 231  
atherosclerotic, and aortic dissection, 1071  
in cholesterol-fed chicks, 948  
in hypercholesterolemia, 305  
blood pressure curves at, in estimation of left ventricular work, 1005-1020  
blood supply from, to lung as collateral circulation to heart, 681  
coarctation of with aortic sinus aneurysm, 1087  
as complication in Taussig-Bing syndrome, 305-306  
congenital anomalies, angiography in detection of, 132  
and dissecting aneurysm, 191  
electrical axis in, 605-610  
medical management of, in infant, 702  
and patent ductus arteriosus, 605-610, 1082  
and pregnancy, 650  
rupture with dissection and hemopericardium after, 1071  
unusual manifestations of, 1080-1083  
commissure, nomenclature for, 730

descending, depressor reaction due to intra-arterial injections in, 691  
dissection of, 1068-1078  
insufficiency of  
in aortic dissection, 1076, 1077  
one hundred cases of severe, 773  
and rheumatoid spondylitis, 770  
unusual clinical features, 719  
and ventricular septal defect, 1085

intima of, protein, lipids and heparin in, in atherosclerotic areas, 683

magnesium content in surgical renal hypertension, 138  
and mitral valve, disease of spatial vectorecardiogram and electrocardiogram in, 770

overlapping of syphilitic and dissected areas of, 1071

potassium content in surgical renal hypertension, 138

pressure in, 940  
and hemodynamics of left side of heart, in mitral stenosis, 69-80

sinuses of Valsalva from, in cardioaortic fistula, 822

sodium content  
in surgical renal hypertension, 138

stenosis of  
carotid artery pulse in, 777  
cinematography in, 942  
clinical features of, 149  
and commissurotomy, 785  
congenital, 695, 784  
and exercise, solute and water excretion after, 92  
thoracic, total occlusion of, in dogs, 1106

**Aortic arch syndrome**, 949

**Aortic valve**  
anaerobic cellular metabolism in anoxia from circulatory impairment, 725  
coronary blood flow and myocardial metabolism in, 762  
disease of, and aortic dissection, 1071  
electrocardiogram in calcareous alterations of, 309  
surgery on, left heart catheterization in selection of patients for, 680

**Aortic sinus**, aneurysm with coarctation of aorta, 1087  
congenital, rupture of, 825

**Aortography**, retrograde, application to cardiovascular diagnosis, 694

**Apnea**  
arterial oxygen saturation during, 933

**Apresoline**  
experimental disease, due to, 688  
for hypertension, 137, 139  
with mercaptans, in vitro studies in hypertension control, 137

and Rauwiloid in hypertension, 137  
side effects of, in reserpine therapy for hypertension, 1094

**Aramine**  
as pressor agent, during spinal anesthesia, 144  
renal hemodynamic response to, in hemorrhagic shock, 98, 102, 104

**Arfonad**, and blood pressure, 654

**Arrest**  
cardiac  
electrocardiogram in, 1097  
electroencephalogram in, 1097  
hypothermic, influence of oxygen on, 937  
and molar sodium lactate in treatment of, 678  
circulatory, cerebral damage following, 691

**Arrhythmia**  
auricular  
in mitral stenosis, before and after valvulotomy, 76-77  
and synthetic steroid alkalines, 142

cardiac  
electrocardiography in, simultaneous esophageal and standard, 733  
due to focal cooling, 1091  
induction and termination by external electric current, 757  
and hyperventilation, 271-276  
pseudo-ventricular, in Wolff-Parkinson-White syndrome, 754

sinus  
in mitral commissurotomy, selection for, 14-16  
and posture changes, 143

ventricular  
ectopic, K-strophanthoside vs. potassium ions in extracellular fluid, 718-719  
induced by digitalis preparations, 121

*See also* Fibrillation; Flutter; Pulsus alternans; Tachycardia

**Arterenol**, recovery of patient in prolonged shock after, 1100

**Arteriole**  
geometric shapes of, biophysics of health, disease and death, 726-727  
pulmonary, in cardioaortic fistula, 825  
subendothelial fibrinoid necrosis of, and systemic lupus erythematosus, 904

**Arteriolonecrosis**, 1065

**Arterioneerosis**, 1065

**Arteriopathy**, tentative classification of, 1065-1067

**Arteriosclerosis**  
coronary ballistocardiogram and nitroglycerine, 588-601  
exercise, water excretion after, 92  
idiopathic, of pulmonary arterial tree with right ventricular hypertrophy, 687

## INDEX

**Arteriosclerosis (Cont'd)**  
 hemodynamics of, in atrial flutter, 508  
 occlusive disease of lower extremities, by-pass procedure in homograft replacement for, 693  
 syndrome, hypertensive, and Serpasil, 136-137

**Arteriosus**  
 patent ductus. *See* Ductus arteriosus, patent  
 trunca, electrical axis in eighty-five patients with, 605, 610

**Arteriothrombosis**, essential, in situ, 1067

**Arteriovenous oxygen difference**  
 in atrial flutter, 508, 514, 516  
 cerebral and hypotension, 146  
 changes in, due to age of subject, 573  
 after complete heart block, 85  
 in congestive heart failure, 1051-1054  
 following exercise, 1102  
 in legs and arms, in Paget's disease, 216-218  
 in mitral stenosis  
     and mitral commissurotomy, 14-16  
     and mitral valvulotomy, 70  
 and total occlusion of thoracic aorta, 1106

**Arteritis, cranial**, 1066

**Artery**  
 carotid pulse in aortic stenosis, 777  
 coronary. *See* Coronary artery  
 disease of human and prosthetic grafts in, 760  
 femoral  
     caval occlusion, 83-84  
     occlusion and segmental aortic-iliac, 948  
     oxygen content of, in Paget's disease, 217  
 geometric shapes of and biophysics of health, disease and death, 726-727  
 internal mammary implantation of, into left ventricle, 677  
 involvement of, in Takayasu syndrome, 139-140  
 obstruction of renal, malignant hypertension produced by, 1094  
 peripheral percutaneous catheterization for blood sampling, 147  
 pulmonary. *See* Pulmonary artery  
 retinal, reactivity of, and renal function in degenerative vascular disease, 64-67  
 segmental occlusion of, 947  
 splenorenal anastomosis, 725  
 subclavian, with long coarcted segment, 1082  
 subendothelial fibrinoid necrosis of, in systemic lupus erythematosus, 904  
 wall of, renal and desoxycorticosterone acetate induced hypertension, 138

**Arthritis**  
 degenerative, due to beta-aminopropionitrile, 948  
 rheumatoid vs. systemic lupus erythematosus, 908

**Aschoff body**  
 in auricular appendage in mitral stenosis, 10-12, 23  
 left, 1107  
 and serum levels of glutamic oxalacetic transaminase, 803

**Ascites**  
 due to carcinoid-cardiac syndrome, 1-6  
 and pericarditis, 33, 37

**Asthenia**, neurocirculatory, and use of digitalis, 293

**Asthma**  
 due to carcinoid-cardiac syndrome, 1-6  
 cardiac with hypertension effect of carotid sinus stimulation on, 653

**Atelectasis**, and left bronchial obstruction, aortic dissection with false aneurysm in, 1070

**Atherosclerosis**  
 aortic  
     in cholesterol-fed chicks, following heparin complex injection, 948  
     dissection, 1071  
     in hypercholesterolemia, 305  
     intima, and heparin, 683  
 coronary  
     estrogen therapy for, 764  
     heparin therapy for, 701  
     insufficiency due to, de-epicardialization for, 955-961  
     secondary effects of trauma or stress, 656  
     and vascular transplants, 690  
 factors in pathogenesis of, 1065  
 and hyperlipemia, after vegetable fat diet, 780  
 and inositol phosphatide in rabbits, 1098  
 and lesions in aortic intima, 683  
 lipoprotein determinations in, with paper electrophoresis, 949

**Atresia**  
 tricuspid  
     electrical axis in, 605-610  
     left axis deviation in, 612-618

**Atrioventricular conduction**  
 in Adams-Stokes attacks and sympathomimetic drugs, 794  
 alteration of time, 737  
 and digitalis, 293

**Atrium**  
 activation in, studies of normal and ectopic, 675  
 fibrillation  
     and digitalis, 291-292, 787  
     edema associated with, 298  
     and latency of isolated, in cat, 1105  
     and mitral commissurotomy, 13, 22  
     in mitral stenosis, 13, 22  
     mitral stenosis with thromboembolism, after Dieumarol therapy, 984

**Atropine**  
 cardiovascular effects of, in Stokes-Adams syndrome, 729  
 for thyrotoxic and euthyroid subjects, epinephrine response to, 145

[Arteriosclerosis-Atropine]

paroxysmal, and use of digitalis, 292  
 phonocardiography in, 772  
 pressure curves, 509-512  
 quinidine for, 782  
 quinidine for, and digitalis, 787  
 and rheumatic auriculitis associated with mitral stenosis, 714  
 ventricular rate control with digitalis in, 121  
 flutter  
     cardiocirculatory performance in, 507-518  
     converted to sinus rhythm, hemodynamics of, 514-515  
     and digitalis, 291-292  
     and digoxin, 513-516  
     pulmonary edema associated with, 298  
 in hearts of fetus and newborn, 178-179, 182-183  
 infarction in anterior wall of, including appendage, 307  
 left  
     left ventricle and aorta, simultaneous puncture in  
     left side of heart, 71  
 in mitral disease, 148  
 pressures in mitral stenosis, 69-80  
 and right relation between pressures of, 140  
 right  
     apparatus for measuring in, 885  
     infarction and mural thrombus in, 244  
     and left ventricular shunt syndrome, 813-818  
     nonfunction of, surgical treatment of, 651  
     and ostia of vena cavae dynamics, 932  
 septal defect of  
     and blood flow, 1000-1002  
     in children, 651  
 closure of ostium primum and ostium secundum types of, 681-682  
 electrocardiographic and hemodynamic correlation in, 786  
 electrocardiographic pattern influence on, 1085  
 hypervolemic murmurs in, 761  
 pulmonary arterial pressure in, 1086  
 surgical correction of, 736, 756 and tachycardia, digitalis for, 291-292  
 and pulmonary edema, 298  
*See also* Auricle

**Atrophy**, central lobular, following complete heart block in dogs, 268

**Auricle**  
 in atypical tetralogy of Fallot, 233  
 contractility in isolated post-stimulation potentiation of, 1096  
 and hyperventilation, 271-276  
 excitability of, 940  
 fibrillation  
   abnormal ballistic waves in, 860  
   and hyperventilation, 272-276  
   in mitral stenosis, and valvulotomy, 76  
   and synthetic steroid alkalines, 142  
 left  
   occlusive thrombi of, 247-249, 250-257  
   pressure measurement of, 940  
 sound  
   in heart block, after exercise, 261-262  
   and intracardiac pressure, 939  
 weight of, effect of heart block on, 88  
*See also Atrium*

**Auscultatory method** for measurement of blood pressure and left ventricular work, 1018-1020

**Autonomic nervous system**, and nonshocking hemorrhage, 1093

**A wave**, double of jugular pulse, 711

**Axostat**, clinical applications of, 134

**Azide**, sodium, clinical use of intravenous, 771

**Ballistocardiogram**  
 in arteriosclerotic heart disease, and nitroglycerine, 590-601  
 cardiac work estimation from, 1012-1014  
 cardiovascular force pattern, 108-113, 1023-1033  
 in coronary heart disease, and nitroglycerine, 590-601  
 direct-body, distortion from, 108-113  
 head-foot, 1028  
 inverse correction of distortion, 1023, 1028  
 low frequency, 776-777  
 and lung collapse therapy, 927  
 in mitral insufficiency, 280-285  
   and stenosis, 280-285, 858-867  
 after smoking, 783  
 vs. vectorballistocardiogram, 134

**Ballistocardiography**  
 in auricular fibrillation, 860  
 in cardiovascular diseases, 1089-1090  
 current methods, 577-587, 845-857, 1022-1033  
 design of low-frequency support, 856  
 direct-body, 108-113, 848-857  
 lateral plane, 746  
 in mitral valve disease, 676-677, 700

past, present, future, 927  
 Starr's high frequency bed vs. direct-body, 855  
   in rheumatic heart disease, 858  
   three-plane, 869-881

**Baroceptor**, cephalic, stimulation of, due to intracranial compression, 888

**Basal metabolism**, and sodium chloride, 311

**Beat**  
 and age of subject, 567  
 ectopic, and potassium chloride, 678  
 in embryonic chicken hearts and ouabain, 315  
 in lead systems, vectocardiograms of, 656  
 premature ventricular, and use of digitalis, 292

**Benemid**, diuretic action of, in edematous subjects, 1099

**Benzodioxane**, and urine flow in pheochromocytoma, 689

**Beck II aortico-coronary sinus fistula**, visualization of, 308

**Beri-beri**  
 and digitalis, 293-294  
 heart disease and myocardial metabolism, 640-641

**Bicarbonate**, blood, level of following carbonic anhydrase inhibitor, 652

**Bishydroxycoumarin** therapy in myocardial infarction, 145

**Blakeslee Awards**, 951

**Block**  
 adrenergic  
   for protection against hypoxic edema, 1100  
   renal hemodynamics, water and electrolyte excretion after, 1101  
 arterioventricular  
   blood flow during, 265  
   chronic, 259-268  
   incomplete in mitral commissurotomy, selection for, 14-16  
   influence of P-R interval on first heart sound in, 1090  
 auricular rates and rhythms, 142-143  
 bundle branch  
   bilateral incomplete, 686  
   false right, and ventricular musculature in infant, 182  
   and hyperventilation, 273  
   left, in newborn heart, 180  
   precordial patterns in, 608-610  
   right, hemodynamic response to, 683  
   right, and left axis deviation, 617-618  
   right, and splitting of first and second heart sound, 146  
 ganglionic  
   in hypertension, 548, 977  
   in pulmonary edema, 701  
 histaminic, for protection against hypoxic edema, 1100  
 mitral, and mitral commissurotomy, 7-29

reticuloendothelial, 934  
 ventricular rates and rhythms, 142-143

**Blood**  
 arterIALIZATION of venous, in limbs involved in Paget's disease, 216-218  
 arterial oxygen  
   in atrial flutter, 508, 514, 516  
   in mitral commissurotomy and stenosis, 14-16  
   in pulmonary emphysema, 1096  
 boron concentrations and electrocardiogram of myocardium, after neutron-capture therapy, 1043-1046  
 coagulation defect, inheritance of, 1084  
 intra-arterial transfusion, direct hydraulic effect of, 140  
 level, in hypertension, 139  
 and mercurate, 53  
 method for sampling of, 147  
 plasma  
   radioiodine levels in, 936  
   volume, in hypothermic dogs, 305

proconvertin-prothrombin level and mitral commissurotomy during Dicumarol prophylaxis, 981-985

supply, following de-epicardialization, 961  
 and compression, 888  
 return to heart, and change in pulsus alternans, 62  
 viscosity of, and high fat feedings in hamsters, 949

**Blood flow**  
 in atrial flutter, cardiocirculatory performance, 507-518  
 cerebral  
   and Dibenzylidine, 144  
   in heart failure associated with hypertension, 653  
   and hexamethonium, 146  
   influence of shock on, 931  
 coronary  
   and complete heart block, 265  
   in hemorrhagic shock, 933  
   and hexamethonium, 146  
   in valvular heart disease, 762  
 hand and finger, 1105  
 in kidney during shock, 99-107  
 liver  
   and ethanol, 143  
   rate of, vs. disappearance rate of colloidal radiogold, 932  
 in mitral valve  
   commissurotomy, 8, 17  
   stenosis, 8, 17  
   after valvulotomy, 77, 79  
 muscle, and exercise before, after sympathectomy, 934  
 in noncyanotic heart disease with heart failure, 130-131  
 and oxygen tension of ischemic toes, 705-706  
 peripheral  
   arterial disease, thermoregulated cool box for measuring, 758  
   and Paget's disease, 215-218

**Blood flow (Cont'd)**

- pulmonary
  - and anomalous pulmonary vein, 650
  - in atrial septal defect, 1000-1002
  - in neurogenic control of blood vessels, 452-453
  - in pulmonary stenosis, 999, 1000-1002
  - redistribution of, 649
  - in ventricular septal defect, 999, 1000-1002
- reversal of and patent ductus arteriosus, 651, 742
- splanchnic, in thoracic aorta, 1106
- and Tromexan, 648
- systemic
  - in pulmonary stenosis, 1000-1002
  - redistribution of, 649
  - velocity of
    - and age of subject, 557-565, 571-575
    - during angiographic exposure, 1036-1037
    - electromagnetic measurement of, 1103
    - in upper extremity, 708

*See also Circulation*

**Blood pressure**

- and age of subject, 209-213, 569-572
- aortic and left ventricular work, 1005-1020
- arterial
  - and ganglioplegic agents, 934
  - and shock, 931
  - in cardiovascular collapse after bulbar paralysis, 987
  - and carotid sinus, 653
  - cerebral, hemodynamic response to reduction of, 144
  - and Chlorpromazine, 313
  - in coronary shock, 676
  - after ganglionic block, 549-551
  - in glomerulonephritis and Arfonad, 654
  - in heart disease
    - arteriosclerotic and coronary, 500-601
    - detection of, 650
    - hypertensive, 747
  - in hypertension
    - and ambulation, 928-929
    - and Apresoline, 137
    - and Arfonad, 654
    - cerebral, 1094
    - and depressor agents, 543-551
    - and hexamethonium, 137, 138, 139, 545-551, 759
    - and pentolinium tartrate, 777
    - and position, 543-551, 928-929
    - and pressor agents, reactivity to, 974-979

*See also Hypertension*

- hypotensive action of Rauwolfia serpentina on, 221-225
- and intracranial compression, 883-889
- and intracranial compression in ischemia, 448

**INDEX**

miniature transducer for intracardiac and intravascular use, 685

in mitral commissurotomy, 13-29

in mitral stenosis, 13-29

in myocardial infarction, 209-213

in parabiotic exclusion of heart, 789

peripheral estimations of cardiac work from, 1012-1018, 1020

postural artery

- in atrial flutter converted to sinus rhythm, 514-518
- in cardioaortic fistula, 825

in pulmonary edema, and Arfonad, 654

renal hemodynamic, response to vasodepressor, 314

vasopressor, 98-107, 314

simultaneous direct-indirect measurements, after cold pressor tests, 966, 970-972

and suppression of pituitary gonadotrophins, in fowl, 1093

of thoracic aorta, 1106

in vessels minute, of skin, 1105

**Blood vessel**

- involvement of, in collagen diseases, 904, 918
- replacement, 729
- vasodilation of, 448

*See also Artery; Capillary; Vein*

**Blood volume**

- after ACTH, 1050, 1053
- and age of patient, 562-565
- in atrial flutter, 507-518
- and carbon dioxide breathing after splenectomy, 1103
- cerebral, regulation of, 448-449
- after cortisone, 1051
- after diuresis in heart failure, 722
- in gastrectomized patients, 314
- in mitral commissurotomy and stenosis, 14-16
- pulmonary
  - and exercise after valvotomy, 728
- variations in healthy males, 787
- vascular
  - in upper extremity, 708
  - venous return and intracranial compression, 886-889

**Body**

- displacement correction, for direct-body ballistocardiogram, 108-113
- exchangeable sodium content in congestive heart failure, 703, 897-902
- in rheumatic fever, after ACTH, 891-896
- size, in age wise decrease of cardiac output, 565
- supports in ballistocardiography, 577-587, 845-857
- and computation of true ballistic force pattern, 1022-1033
- motion and frequency variations, 108

**Brain**

- aneurysm, and coarctation of aorta, 1082
- arteritis, 1066
- blood flow
  - in heart failure associated with hypertension, 653
  - influence of shock on, 931
- blood vessels and intracranial compression in ischemia, 448
- extract, mode of action, 727-728
- hemodynamic response
  - to blood pressure reduction, 144
  - to heart failure with hypertension, 653

lipid inhibitor vs. soy bean inositol phosphatide inhibitor, 144

regulation of blood supply, 448

syndrome, in bacterial endocarditis, 1086

**Breast**  
pigeon, deformity and dissecting aneurysm, 190

**Breathing**  
periodic, in cardiac failure, 717

**Bronchospometry** and ventilation, in absence of right pulmonary artery, 651

**Bronchus** and *Rauwolfia serpentina*, 222

**Buerger's disease** superficial phlebitis with, phenylbutazone for, 836

**Bundle branch block**  
bilateral incomplete, new electrocardiographic entity, 686

left  
in heart of newborn, 180  
and hyperventilation, 273  
precordial patterns in, 608-610

right  
electrocardiography in, 683  
false, and ventricular musculature in infant, 182  
hemodynamic response to, 508, 683  
and left axis deviation, 617-618  
in selection for mitral commissurotomy, 14-16  
and splitting of first and second heart sound, 146

**Bundle of His**  
in surgical technic for heart block, in dogs, 83, 259-260

**Burger triangle**, and the Einthoven law, 134

**Butazolidin**  
for superficial thrombophlebitis in extremities, 833-836  
See also Phenylbutazone

**Calcium**  
in cerebrospinal fluid, 1104  
and digitalis, muscle contraction due to, 122  
ethylenediamine tetraacetate and plasma cholesterol, 759  
oxalate, as anticoagulant, 648

**Carbohydrate**  
and myocardial metabolism, 637-646  
in hemorrhagic shock, 933

**Carbon dioxide** production and age of subject, 575

**Carcinoid**  
cardiac syndrome, 1-6  
malignant, 776

**Carcinoma**  
and thrombophlebitis  
in extremities, phenylbutazone for, 835  
as unsuspected malignancy clue, 791

**Cardiac arrest**  
electrocardiogram of, 1097  
electroencephalogram in, 1097  
hypothermic, and oxygen, 937  
molar sodium lactate for, 678

hypothermic influence of oxygen on, 937  
and molar sodium lactate in treatment of, 678

**Cardiac block**  
complete, experimental, 82-89, 259-268

**Cardiac index**  
and age of subject, 560-561, 563

**Cardiac output**  
after ACTH, 1049  
and adrenalectomy, 141  
and age of subject, 557-565, 572  
in atrial flutter, 508-518  
converted to sinus rhythm, 514-515  
after Digoxin, 516  
and blood viscosity, 1106  
in congestive heart failure, 1051-1055

and constrictive pericarditis, 140

and coronary shock, 676

after cortisone, 1051

by cuvette oximeter under cyclopropane - oxygen and ether anesthesia, 1103

and ganglionic block, 549-551  
and ganglioplegic agents, 934  
and heart block, 83-85, 261, 264, 268

in hypertension, 777

in infectious hepatitis, 1098

in mitral commissurotomy, 8-9, 13-29

in mitral stenosis, 8-9, 13-29, 70, 78-79

and muscular work in anesthetized dogs, 314

in osteitis deformans, 215-218  
and pentobarbital sodium anesthesia, 791

and pentolinium tartrate in hypertension, 777

in pulmonary stenosis, 649  
response to exercise, 1102  
at rest and during exercise  
Hamilton's dye - injection method for determination of, 932  
in Paget's disease, 216-218  
and valvulotomy, 728

and vascular regulation, 448

**Cardiac reserve**, of left heart, and age of subject, 567, 575

**Cardioangiography**, mitral regurgitation by, 777

**Cardiopericardiomyopexy**, in rheumatic heart disease, 713

**Cardiopneumonopexy**, pulmonary collateral circulation to coronary arteries by, 681

**Cardiopulmonary system**, function of, artificial maintenance of, 775

**Cardiorespiratory system**, dysfunction in, and mitral stenosis, 7

**Cardiospectrogram**, 711

**Cardiovascular disease**  
and abnormal tryptophan metabolism associated with malignant carcinoma, 776  
hormonal factors, 1093  
hypertensive, 56-57

and pericarditis, 30-31  
photofluorographic detection of, 947

**Cardiovascular system**  
in collagen diseases, 903-919  
congenital malformations in 6,053 infants, 649

forces of  
from body motion, 1022-1029  
direct - body ballistocardiogram, 108-113  
and hypertonic solutions in gastrectomized patients, 314  
response to tobacco and whisky, 1097

**Carditis**, rheumatic  
and rejection for mitral commissurotomy, 8  
serum glutamic oxalacetic transaminase in, 795-800

**Carotid sinus**  
and blood pressure, 653  
constriction of, and hypertension, 786  
massage in region of for left ventricular failure, 653  
and pulmonary edema, in hypertension, 653  
sensitivity, and digitalis, 293  
syndrome and irradiation, 938

**Cat**  
heart muscle, temperature and glucose utilization for contractile force in, 1105  
isolated atrium latency of, and fibrillation, 1105

**Catheterization**, cardiac  
in absence of right pulmonary artery, 651  
in anomalous pulmonary veins, 649-650, 782  
in atrial flutter, 507-518  
in cardioaortic fistula, 821, 824, 825  
in coronary sinus, 637-646, 657  
fluoroscopic image amplifier for, 793  
in intracardiac knotting of catheter, 141  
left and right sides, simultaneously, 713  
in mitral valvulotomy, 70-71  
in pulmonary stenosis, 994, 998-999  
pressure during, 764-765  
pulse pressure patterns with, 743  
in syndrome of left ventricular-right atrial shunt, 813-818  
technic for selection, in cardiac surgery, 680, 780  
transthoracic left atrial puncture for, 705  
two year report on heart station in private hospital, 747

**Cation exchange resin**, electrolyte changes due to, 625-629

**Cell**  
blood volume and hypothermia, 139  
heart muscle, damage of, transaminase as index of, 735  
in recovery from congestive heart failure, 1061  
vascular colloidal fat suspensions by, 738

**Celiotomy**, for unexplained jaundice, circulatory complications following, 921-926

**Central nervous system** and alkaloids, 221  
injury to, and hypernatremia, 931  
and vasoconstriction, 448

**Cerebrovascular disease** use of anticoagulant drugs in, 775  
syndrome of intermittent insufficiency of basilar arterial system, 1101

**Cerebrum** aneurysm and coarctation of aorta, 1082  
arteritis of, 1066  
blood flow  
in heart failure associated with hypertension, 653  
influence of shock on, 931  
extract, mode of action, 727-728  
hemodynamic response to blood pressure reduction, 144  
lipid inhibitor vs. soy bean inositol phosphatide inhibitor, 144

*See also Brain*

**Chest** in mitral insufficiency, kinectocardiogram in, 280  
and pericarditis, 31-41  
malignancy in wall of, 31-32

**Cheyne-Stokes respiration**, oximeter study in, 933

**Chicken** butacaine-heparin complex with high cholesterol diet, 948  
hearts, oxygen consumption in embryonic, 315

**Childhood** atrial septal defects in, 651  
electrical left axis deviation in, 609  
heart disease in, analysis of 1,286 in cardiac clinic for school children, 1102  
patent ductus arteriosus in surgical closure of, 766  
rheumatic heart disease in measurement of QTc in prognosis of, 783-784  
and rheumatic fever in, 944

**Chloride** excretion  
and head-down position, 1102  
and nonshocking hemorrhage, 1093  
renal, in congestive heart failure, 652  
and N-isoquinolinium, 1099

**Chlorpromazine** for hypertension, 313, 700  
with Rauwolfia serpentina, 700  
with reserpine, central autonomic vasomotor after, 717

**Cholecystectomy**, in patients with coronary heart disease, 731

**Chlortetracycline**, for bacterial endocarditis, 305

**Choledyl**, in congestive heart failure and anginal syndrome, 653

**Cholesterol** blood levels, and low fat intake in South African Bantu, 949 content of, pericardial fluid, 193-197  
dietary and butacaine-heparin complex in chicks, 948  
and heparin in hypercholesterolemia, 305  
plasma  
isotopic studies of, 948  
two metal-binding agents, 759  
serum  
and calcific aortic stenosis, 150 level, and brain extract vs. beta sitosterol, 727-728

**Choline**, theophyllin compound, in angina pectoris, 676

**Chymotrypsin**, and arterial thrombus, 145

**Cigarette. *See Smoking***

**Cineangiocardiogram** of right heart during filling stage, 201

**Cineangiocardiography** in coronary sinus reflux opacification, 199-205  
in patent ductus arteriosus, 686

**Circulation** by-pass, of right heart, 651  
and chymotrypsin in thrombosed vessels, 145  
coronary  
and anastomosis, 133  
after arterialization of coronary sinus, 677  
in heart disease, and nitroglycerine, 599-601  
after implantation of mammary artery into left ventricle, 677  
coronary vs. peripheral, and Tromexan, 648  
cross, and arteriovenous shunts, cardiac lesions, 685  
dynamics of, 706  
early disappearance of T-1824 from, in rabbits, 1104  
and endocrine, 136  
of forearm with thiocyanate, 772  
hematoctrit of large vessel and forearm capillary, 741  
intramyocardial new physiologic world of, 540  
in mitral stenosis, 699  
of liver, in burn patients, 746  
of materials to heart, and intracranial compression, 888  
in myocardial infarction of elderly subjects, 211-213  
neurogenic control of, 448-453  
performance, and age of subject, 560-565, 567-575  
peripheral  
and digital rheoplethysmography, 675  
in Paget's disease, 218  
in positive-negative pressure respiration, 146-147

postnatal adaptation of, by infants, newborn and preterm, 930  
and pregnancy, 147  
in premature, newborns, and infants, 930  
pulmonary  
cor pulmonale due to changes in, 652  
direct delivery of vena caval blood into, 651  
and hexamethonium, 136  
transcapillary migration of thiocyanate ion and heavy water in, 653

renal  
of constrictive pericarditis, 140  
and renal response to nonshocking hemorrhage, 1093  
and respiration after bilateral glossopharyngeal nerve section, 692  
single indicator dilution techniques, 741  
systemic and oxygen starvation in noncyanotic heart disease with heart failure, 131  
time and age of subject, 212-213, 561-565

**Cirrhosis**, of liver, blood flow rate, 932

**Clinical Conference** Ebstein's disease, case for diagnosis, 439-447  
Noncyanotic heart disease with heart failure in a seven year-old boy, 124-131  
Patient with circulatory complications following exploratory celiotomy for unexplained jaundice, 921-926

**Clinical Progress** Aortic dissection (dissecting hematoma; dissecting aneurysm of aorta, 1068-1078  
Cardiovascular manifestations of collagen diseases, 903-919  
Clinical use of digitalis preparations, 116-123, 291-301  
Myocardial metabolism, 635-646  
Neurogenic control of the blood vessels, 448-454  
Unusual manifestations of coarctation of aorta, 1080-1083

**Clotting time** in hypothermia, 905  
serum vs. plasma, 648  
standardized, in Dicumarol therapy, 688, 748  
in thrombosis, after Dicumarol and/or heparin, 554-555

**Clubbing** of fingers due to absence of aortic arch, 649

**Coagulation** and fat ingestion, 648  
intravascular, in thrombosis, 553-555

**Coarctation** of aorta  
and patent ductus arteriosus, 605-610, 1082  
rupture with dissection and hemopericardium after, 1071

unusual manifestations of, 1080-1083

**Cold** immersion stimulus response of intra-arterial pressure to, 963-973 pressor test of Hines and Brown, 963-964, 967

**Colitis**, ulcerative, potassium deficiency in, 935

**Collagen disease**, cardiovascular manifestations of, 903-919

**Colon**, in dietary sodium restriction, 625, 629

**Coma**, diabetic, and hypertension, 931

**Commissure**, of aorta and of pulmonary artery, suggested nomenclature for, 730

**Commissurotomy** mitral in class IV cardiaacs, 694 and Dicumarol, 981-985 fifty patients with, five or more years after, 726 methods of evaluation, 7-29 post-syndrome, 944 selection for, 942 transaortic and transventricular, in rheumatic aortic stenosis, 785

**Connective tissue**, structure involvement, in collagen diseases, 903-918

**Convertin** and activity of lipid inhibitor of brain vs. soy bean inositol phosphatide inhibitor, 144 in serum-induced thrombosis and Dicumarol and/or heparin, 554-555

**Cor kyphoscolioticum**, pathogenesis of, 141

**Coronarography**, postmortem, in aged persons, 1108

**Coronary artery** disease of and angina pectoris, 654, 790 beta sitosterol and cholesterol in, 709 causes of, 1089 cholecystectomy in, 731 c-reactive protein determination as diagnostic aid in, 735 heart muscle and electrocardiogram in, 530-541 lipoproteins and diet in, five year study of, 743 neurogenic factors in and results of selective vagotomy, in dogs, 770 in normotensives, Master two-step test in, 721 and occlusive auricular thrombi, 256 in pregnancy, 1086 prevalence of in South Africa, 730-731 prolonged anticoagulant therapy in management of, 750 proposed nomenclature and classification for electrocardiographic and pathologic findings, 537-541

**Rauwolfia serpentina** in, methods for evaluation of therapy, 739-740

**surgery** for, 307-308, 677 and Workmen's Compensation present status of, 760 insufficiency of, 133 de-epicardialization for, 955-961 and Dicumarol, 938 and Ergonovine stress test studies, 780 and intermediate coronary artery syndrome, 656 transaminase activity following, 736 vasodilator drugs for, 169-175, 938

**left** recanalized thrombus in anterior descending ramus of, 244 transaminase level following placement of ligature about, 163 ventricular flow changes in, due to complete heart block, 86

**occlusion** changes in RS-T segment and QRS complex following, 135 failure of cardiopericardiopexy to protect experimental piglets against, 717 surgery for, 677 pulmonary collateral circulation to, by cardiopneumonectomy, 681 spasm of, electrocardiography in, 656

**Cor pulmonale** cardiopulmonary hemodynamics during recovery from, 1058 and Diamox, 652 in infancy simulating congenital heart disease, 652 renal hemodynamics during recovery from, 1058 respiratory center in, sensitivity of, 783

**Corticosteroid** and collagen diseases, 916-918 and necrotizing angiitis, 917

**Corticotropin** and aldosterone secretion, 697 and blood oxygen extraction, 1049 volume, 1050

**and cardiac output**, 1049

**and collagen diseases**, cardiovascular responses, 916-918

**fluid retention** due to, hemodynamics of, 1047-1055 and hemorrhagic shock, 1091 and necrotizing angiitis, 917 for nephrotic syndrome, adrenal response to, 148 water and sodium diuresis during therapy with, 1092

**plasma content** of 17-hydroxy-corticosteroid response to, 145

**in postcardiotomy syndrome**, 696

for rheumatic fever, 148, 891-896, 941 and vascular pressures, 1050, 1053

**Cortisone** combined with epinephrine, and fat mobilization, in rat, 144 in congestive heart failure hemodynamic effects of, 696 fluid retention due to hemodynamics of, 1047-1055 and hemorrhagic shock, 1091 in postcardiotomy syndrome, 696 for rheumatic fever, 941 in rheumatic heart disease hemodynamic effects of, 696 serum glutamic oxalacetic transaminase concentration after therapy with, 799-805 vascular responses to, 918 in potassium-deficient rats, 311

**Costophrenic septal line** in venous hypertension, 807-811 definition and pathogenesis of, 807-808

**Cranium** pressor receptor and compression in dog, 883-889

**Creatine** heart muscle, 781 clearance of, and renin, 147 excretion of, in head-down position, 1102

**Cyanosis** changing mottled, due to carcinoid-cardiac syndrome, 1-6 development of, 230-231 and pericarditis, 33, 36 and occlusive thrombosis, 256

**Cymarin** and epinephrine, in respiration of heart muscle slices, 310

**De-Epicardialization** for angina pectoris, 955-961

**Depoheparin** for development of aortic atherosclerosis hypercholesterolemia, 305

**Dermatomyositis** cardiovascular manifestations and ACTH, cortisone, 918 skeletal muscle and skin involvement in, 914-915

**Desacetylanguinin** and epinephrine in respiration of heart muscle slices, 310

**Desoxycorticosterone** and/or cortisone in hypertension, 313

**Desoxycorticosterone acetate** hypertension induced in rats with, 138 and Pitressin, 139 and saline increased sensitivity to, 1092 and salivary electrolyte concentrations following, 1094

**Dextran** and prolonged bleeding times, 1084

**Diabetes** and myocardial metabolism, 643-645

**Diamox**  
 in congestive heart failure due to  
 cor pulmonale, 652  
 diuresis, 722  
 hemodynamic changes after,  
 938  
 and electrolyte output, 721  
 and hyperchloremic acidosis,  
 1087  
 in pulmonary emphysema, ar-  
 terial blood gases following,  
 1096  
 single oral dose of, in renal dis-  
 ease, 1096

**Diarrhea**  
 due to carcinoid-cardiac syn-  
 drome, 1-6  
 due to Merpurate, 55, 58

**Dibenzyline**  
 blockade with and renal hemo-  
 dynamic response to vaso-  
 pressor agents, 104  
 blood pressure reduction with  
 cerebral hemodynamic re-  
 sponse to, 144  
 and vascular responses in dog's  
 hind leg, 727

**Dibenzylethylenediamine dipen-  
 cillin G** in prevention of  
 rheumatic fever, 148

**Dibozane** and hypertension, 929

**Dicumarol**  
 blockade with in venous throm-  
 bosis, 553-555  
 and coronary insufficiency, 938  
 and myocardial infarction, 145  
 management of, 656  
 massive intermittent dose  
 method, 720  
 prophylaxis with, mitral com-  
 missurotomy during, 981-  
 985  
 standardized clotting time in  
 control of therapy with,  
 688, 748  
 and Tromexan effect of, on re-  
 canalization of thrombosed  
 veins, 784

**Diet**  
 caloric intake in myocardial in-  
 farction, 211-213  
 dissecting aneurysm produced  
 by, 185-192  
 high cholesterol and butacaine-  
 heparin complex in chicks,  
 948  
 high fat and blood viscosity, 949  
 high vegetable fat, and early  
 atherosclerosis with hyper-  
 lipemia, 780  
 in hypertension, 311  
 low-sodium vs. hydralazine for  
 hypertension, 311  
 pteroylglutamic acid deficient  
 and congenital cardiovascu-  
 lar abnormalities, 750  
 sodium restricted and sodium  
 retention, cation-exchange  
 resin in, 625, 629

**Digilanid**, definition of, 117

**Digital vasoconstrictive reflexes**  
 induced, 789-790

**Digitalis**, 116-123, 291-301  
 in atrial fibrillation treated with  
 quinidine, 787

and atrioventricular conduc-  
 tion, 203  
 in congestive heart failure, 1051,  
 1054  
 dosage, 294-295, 297  
 and edema, in hypoproteinemic  
 states, 293  
 and elderly cardiae, 708  
 and electrolytes  
 excretion pattern, 691  
 output, 721  
 potency of U.S.P. and Inter-  
 national Standard, 117  
 and pulsus alternans, 62

**Digitalis lanata**, 117  
 acetyl-digitoxin derived from,  
 690

**Digitalis purpurea**, 117

**Digitoxin**, 117, 118-119, 122  
 and uncoupling of oxidative  
 phosphorylation, 716  
 U.S.P., 296, 297

**Digoxin**, 118, 123  
 in atrial flutter hemodynamics,  
 513, 515-516  
 in latent cardiae failure circula-  
 tory dynamics, 773-774  
 U.S.P., 298, 301  
 dosage, 297  
*See also* Digitalis

**Dihydralazine** for hypertension, 139

**Dilatation**, poststenotic and aneu-  
 rysm development, 1096

**Dinitrophenol**, 2, 4, and electrical  
 response of myocardium,  
 1100

**Dioxylene phosphate**. *See* Paveril

**Diuresis**  
 and acetazolamide hemody-  
 namic changes after, 938  
 in congestive heart failure  
 blood volume after, 722  
 and Diamox, 652-653  
 and Tonephin and/or oxygen  
 therapy, 652  
 and digitalis therapy, 120  
 electrolyte outputs in, 721  
 and mercaptomerin sodium, 143-  
 144  
 mercurial, 52-59  
 in congestive heart failure,  
 897-902  
 for low-salt syndrome, 766  
 weight loss during, in vivo iso-  
 type technic for, 897

**Dog**  
 heart block in, complete, 82-  
 89, 259-268  
 hypertension in, 786  
 hypothermia in, 305  
 intracranial compression in pres-  
 sor mechanisms induced by,  
 883-889  
 renal clearance before and after  
 administration of Merpu-  
 rate, 53  
 thrombus in  
 arterial, 145  
 venous, and Dicumarol, 553-  
 555  
 valvular lesions in, and sodium  
 content and excretion in,  
 1095

**Ductus arteriosus**, patent, 605  
 and cardioaortic fistula, 825

cineangiography in, 686  
 and coarctation of aorta, 1082  
 absent transverse arch in,  
 1082  
 electrical axis in, 605-610  
 congenital, causative factors of,  
 1085  
 electrocardiographic patterns in,  
 1085  
 and opacification of coronary  
 sinus, 203  
 pulmonary artery pressure in,  
 1086  
 and pulmonary hypertension,  
 778-779  
 with reversal of flow, 651, 742  
 surgical closure of, in infants  
 and children, 766

**Dumping syndrome**, and gastrectomy, 314

**Dupuytren's contracture**, etiologi-  
 cal factors of, 308-309

**Dyspnea**,  
 and congestive heart failure,  
 724  
 and pericarditis, 33, 36, 37

**Dystrophia myotonica** heart in,  
 704

**Ebstein's disease**, 430-447, 778  
 electrocardiographic alterations,  
 in, 1085

**Edema**  
 due to carcinoid-cardiac syn-  
 drome, 1-6  
 congestive cardiae, 1057-1063  
 extracellular fluid in, 631  
 and sodium retention vs.  
 venous pressure, 630-633  
 fluids  
 digitoxin content of, 119  
 endotracheal tube in removal  
 of, 654  
 in hypoproteinemic states and  
 digitalis, 293  
 hypoxemic, histaminic and ad-  
 renergic blockade for pro-  
 tection against, 1100  
 and Merpurate, 55  
 and pericarditis, 33, 36, 37  
 pulmonary  
 and Arfonad, 654  
 following complete heart  
 block, in dogs, 268  
 and digitalis, 298  
 and endotracheal tube, 654  
 epinephrine and neurogenic  
 factors in, 1100  
 in fatal bulbar poliomyelitis,  
 987  
 and ganglionic blocking  
 agents, 701  
 with hypertension, carotid  
 sinus stimulation on, 653  
 refractory due to congestive  
 heart failure, 1087

**Effusion**  
 pericardial  
 cardiac pulse pressure tracings  
 in, 142  
 pericardectomy for constrictive  
 pericarditis due to,  
 193-197  
 pressure pulse tracings in  
 heart in, 142

and QRS complex, 50  
pleural, and pericarditis, 33, 36  
**Einthoven triangle**  
and Burger triangle, 134  
test and modification of, 752  
**Eisenmenger's complex**, electrical axis in 72 patients with, 605-606, 610  
**Electrocardiogram**  
in atrial fibrillation, 509-512 and atrial flutter, 509-512 in atrial septal defects, 736, 756 body's electric inhomogeneities in, 685  
in congenital heart disease, left axis deviation, 604-610 in congestive failure voltage reduction in limb, and precordial leads, 1090 of coronary arteriospasm, 656 in Ebstein's disease, 1085 endocardial of coronary sinus dysrhythmias, 657 hemodynamic interpretation of U wave of, 134 in hyperpotassemia of diabetic acidosis, 678 and hypotassemia, 781 in hypoxia, tobacco smoking and nicotine, 315 left auricular and combined hypertrophy, 231 left axis deviation in tricuspid atresia and single ventricle, 612-618 of left ventricle in echinococcosis disease of, 521, 522 of myocardium following neutron-capture therapy with sodium borate, 1043-1046 in necrotizing angitis, 911 nomenclature and morphology of, 134-135 nonpathologic factors in, 710 in persons over seventy years of age, 704 potassium ion and duration of systole, 657 precordial leads and intracardiac pressure values in right heart strain, 656 in progressive systemic sclerosis, 913 in syndrome of left ventricular-right atrial shunt, 816 in systemic lupus erythematosus, 905, 906, 907 in valvular disease after mitral commissurotomy, 770 in valvular pulmonic stenosis and intact interventricular septum, 699 vs. vectorecardiogram in myocardial infarction, 711 in right heart strain, 657 in ventricular fibrillation propranolol and acetylcholine for, 621-623 of ventricular hypertrophy in atypical tetralogy of Fallot, 231, 235 in ventricular septal defect, 997, 1090

**Electrocardiography**  
in atrial fibrillation during quinidine administration, 782 in bundle branch block, 686 in calcification of pericardium, 44-51 cardiac catheterization disorders in course of, 309 cardiac cycle of left heart, in mitral stenosis, 73-80 in cardiac surgery, 657 in cardioaortic fistula, 823-825 in complete heart block in dogs, 261 in congenital heart disease, 1085 in coronary artery spasm, 656 in detection of organic heart disease, 734 in echinococcosis disease of left ventricle, 526-528 elimination of distortion due to somatic tremor, 309-310 esophageal and standard leads simultaneous, for study of cardiac arrhythmias, 733 general networks for central terminals in, 838-844 in heart block surgically induced 83, 84 in heart rate and membrane potentials, 133-134 and hemodynamics correlation of in atrial septal defect, 786 hypo- and hyperpotassemia patterns, 738 image tetrahedron by reciprocal stimulation of tridimensional esophageal electrode, 723 in intra-arterial pressure response to cold immersion stimulus, 965-967, 970 mass technic for congenital heart disease in mental defectives, 650 in myocardial infarction combined anterior and posterior, 1089 effect of eating, 656 secondary, 307 suspected, 756 for unsuspected acute, 677 in obstructive coronary disease, 530-541 in patent ductus arteriosus, 1085 in pericarditis, 33 in right bundle branch block, 683 in serum glutamic oxaloacetic transaminase studies in dog, 165-166 in serum sickness, 916 of sinus coronarius, 310 in tachycardia ventricular vs. supraventricular, 1090-1091 in tourniquet shock, 141 in Valsalva maneuver, in heart failure, 686 and mitral stenosis, 134  
**Electroencephalogram**  
in cardiac arrest, 1097  
**Electrokymogram**  
atrial, in mitral disease, 148

**Electrolyte**  
balance in edemic congestive heart failure, 630-633 composition of "200 mg. sodium diet" and Kempner rice and fruit diet," 654 disturbances and digitalis poisoning, 301 following nephrectomy, 310 excretion after adrenergic blockade, 1101 after digitalis, 691 after diuretics, 721 in hypertension, 690, 928-929 after nephrectomy, 310 in shock, and vasopressor agents, 101 metabolism in myocardial ischemia, 758 salivary concentrations in, 1094 in serum and urine and hydrocortisone, 928 in myocardial infarction, 208 in shock, 141 and sodium restriction, 625-629  
**Electrophoresis**  
for heparin extraction from human tissues, 305 lipoprotein determinations with, in atherosclerosis and lipemia, 949 paper, for identification of individual steroids in mixtures, 1104  
**Embolism**, 1067  
pulmonary  
in chronic congestive heart failure, 785 experimental miliary, 737 urinary coproporphyrins following, 1096-1097 rheumatic auriculitis associated with mitral stenosis, 714  
**Emphysema**, pulmonary  
arterial blood gases in, and carbonic anhydrase inhibition of, 1096 decreasing respiratory minute volume in, 314  
**Endocarditis**  
bacterial, 709  
enterococcal, antibiotics for, 305 toxic-organic psychosis in, 1086 staphylococcal, erythromycin in fatal, 1086 streptococcal, antibiotics for, 305 subacute bacterial with atrial septal defect, 132 bicuspid valves and coarctation of aorta, 1082 and cardioaortic fistula, 823, 825 and mitral commissurotomy, 8, 13 with mitral valvulitis, 132 prevention of, 761 in thrombus covering myocardial infarction with necropsy, 242-245

## INDEX

**Endocardium**, involvement of, in systemic lupus erythematosus, 904-908

**Endotoxin**, meningocecal cardiac lesions in rabbits induced with, 693

**Enzyme**, serum concentrations of, in rheumatic fever, 754

**Epicardium**, removal of dog's heart, 955

**Epinephrine**  
and fat mobilization, 144  
in neurogenic control of blood vessels, 450-451  
in pulmonary edema, 1100  
and norepinephrine  
plasma concentration in hypertension, 746  
vascular responses, after Dibenzyline, 727

norepinephrine and thyroid hormones, hemodynamic and metabolic interrelationships in activity of, 684

and plasma content of 17-hydroxy-  
corticosteroids, 145

and rabbits' hearts perfused with Locke's solution, 1100

and respiration of heart muscle slices, 310

response, to atropine for thyrotoxic and euthyroid subjects, 145

**Erythromycin**  
for endocarditis  
enterococcal, 305  
and fatal staphylococcal, 1086

**Ethanol**, and hepatic blood flow, 143

**Ethyl alcohol** and coronary insufficiency, 938

**Ethylenediamine tetraacetate calcium**, and plasma cholesterol, 759

**Exercise**  
cardiocirculatory performance during, in atrial flutter, 518  
cardiorespiratory response to, 1102

circulatory hemodynamics after, in Paget's disease, 215-218

and complete heart block, 263-264

oxygen removal rate after, in mitral stenosis, 774

pulmonary pressure response in mitral disease, 8-9, 17

after sympathectomy, 934

tolerance  
in heart block, complete, 264  
in mitral stenosis, 946

ventricular pressure response in mitral commissurotomy, 19

water excretion after, in congestive failure, 90-94

**Extremity**  
blood flow in  
plethysmography for, 1105  
unilateral clubbing due to absence of aortic arch, 649

lower  
homograft replacement in treatment of arteriosclerotic occlusive disease of, 693

occlusive arterial vascular disorders of, and exercise, 934

phlebodynamics of, 744

and osteitis deformans, localization of, 215-218

thrombophlebitis in, phenylbutazone for, 833-836

upper, multiphasic nature of blood flow, velocity and vascular volume in, 708

vascular responses to, to epinephrine, norepinephrine before and after Dibenzyline, 727

vasosensory innervation of, 1105

circulation study in forearm with thiocyanate, 772

clearance of radioiodine from, in patients with myocardial infarction, 677

congenital arteriovenous fistula in, 689

**Fallot's tetralogy**, 789  
atypical noncyanotic with increased lung vascularity, 230-237

cardiac catheterization in diagnosis of, 132

coronary sinus reflux in, cineangiography in, 202, 203

electrical axis in 845 patients with, 605-606, 609

electrocardiography in, 1085

unusual findings in, 723

**Fat**  
dietary, and blood viscosity, 949  
low intake of South African Bantu and blood cholesterol levels, 949

mobilization of, and epinephrine, 144

neutral, and lactescence of serum, 1097

**Fatty acid**  
and myocardial metabolism, 635-646

in myocardial ischemia, 758

**Fetus**, heart of, and Kent's alternate theory of conduction, 177-183

**Fever**, in heart disease, 242

**Fiber**, Mahaim's paraspecific in fetal hearts, 183

**Fibrillation**  
atrial  
and mitral commissurotomy, 13-16, 22

mitral stenosis with thromboembolism, after Dicumarol therapy, 984

phonocardiography in, 772

pressure curves, 509-512

quinidine for, 782

quinidine and digitalis for, 787

and rheumatic auriculitis associated with mitral stenosis, 714

ventricular rate control with digitalis in, 121

auricular

abnormal ballistic waves in, 860

and hyperventilation, 272-276

in mitral stenosis, and valvulotomy, 76

and synthetic steroid alkalamines, 142

ventricular  
due to focal cooling, influence of acetylcholine and prostigmine on, 620-623

and myocardial metabolism, 642

prevention of, in hypothermic dog, 768

prostigmine and acetylcholine for, 621-623

due to surgery for occlusive coronary artery, 677

treatment of, using capacitor discharge, 315

**Fibroelastosis**, endocardial, in adult, 935

**Fistula**  
arteriovenous and digitalis, 293

cardioaortic, 819-829

congenital arteriovenous in extremities, 689

femoral arteriovenous arterial pressure changes in renal hypertension following, 1092

**Flowmeter**, electromagnetic, for measurement of blood streaming velocity, 1103

**Fluid**  
accumulation of, in injured area due to tourniquet shock, 933

cerebrospinal, calcium and magnesium in, 1104

edema  
digitoxin content of, 119

endotracheal tube in removal of, 654

extracellular  
and ectopic ventricular arrhythmia, 718-719

and edema in congestive heart failure, 631

pericardial, cholesterol content of, 193-197

pulsating, resonance of, 742

retention of, induced with ACTH and cortisone, hemodynamic changes due to, 1047-1056

in vena cava, rapid injection in, and right atrial pressure, 934

**Fluoroscopy**  
in echinococcosis disease of heart, 525, 528

in pericarditis, heart action of, 37

for prevention of intravascular knotting of catheter, 141

study of heart action in pericarditis, 37

**Flutter**  
atrial  
cardiocirculatory performance in, 507-518

and digitalis, 292

and digoxin, 513-516

**Ganglion**  
blockade of  
blood pressure after, 548

**central blood volume and circulation time after, 934**  
**blockers and reserpine combination therapy in hypertension, 698**  
**blocking agent**  
 in glomerulonephritis complicated by hypertension and pulmonary edema, 654  
 in pulmonary edema, 701

**Glioblastoma multiforme**, neutron-capture therapy for, electrocardiogram following, 1043-1046

**Gastrectomy**, and dumping syndrome, 314

**Gastrointestinal tract**, upper, sodium in, and dietary sodium restriction, 625, 629

**Gitalin**, 123  
 definition, 117  
 N. N. R., initial and maintenance therapy dosage, 297, 301

**Gitoxin**, chemical assay of, 117

**Glomerular filtration rate**  
 during congestive failure and after recovery from, 1058, 1061  
 during head-up tilted position and during ambulation, 928-929  
 ratio between tubular maximum for glucose and, 1104  
 and vasopressor agents during shock, 98-104

**Glomerulonephritis**, with hypertension and pulmonary edema, Arfonad in treatment of, 654

**Glucose**  
 and contractile force of isolated perfused hearts, 1104  
 myocardial extraction of, response to rapid temperature changes, 750  
 metabolism  
 myocardial, 637-646  
 in myocardial ischemia, 758  
 in saline, superficial phlebitis due to, phenylbutazone for, 835  
 tubular maximum for and glomerular filtration rate, ratio between, 1104

**Glycerol trinitrate**. *See* nitroglycerine

**Glycoside**  
 and cardioactivity of digitalis preparations, 116, 119  
 excretion of, fecal and urinary, 119

**Gonadotrophin**  
 pituitary, suppression of, and blood pressure in fowl, 1093

**Gradient**, spatial ventricular, 684

**Graft**, human and prosthetic, in arterial disease, 760

**Hamilton's dye-injection method** for cardiac output at rest and during exercise, 932

**Hamster**, dietary fat and blood viscosity in, 949

**Heart**  
 acyanotic, pulmonary arterial pressure in, 1086  
 adipose tissue around, vectorcardiograms of beats, 656  
 and alkaloids, activities of ajmaline vs. serpentine, 221  
 antiaccelerator and antiarrhythmic action of synthetic steroid alkamines on, 142  
 arrest  
 electrocardiograms in, 1097  
 electroencephalogram in, 1097  
 hypothermic, and oxygen, 937  
 molar sodium lactate for, 678  
 arrhythmia  
 electrocardiography in, 733  
 due to focal cooling, 1091  
 induction and termination by external electric current, 757  
 arteriosclerotic  
 and nitroglycerine, ballistocardiograms following, 588-601  
 rheumatic, syphilitic and Mercurate, 56-57  
 cardiocirculatory performance in atrial flutter, 507-518  
 circulation of materials to, and intracranial compression, 888  
 clinic for school children, 1,286  
 analyses, 1102  
 congenital  
 absence of spleen with, 649  
 acyanotic, 124-131  
 cor pulmonale simulating, in infancy, 652  
 electrocardiography in, 604-610, 1085  
 medical rehabilitation program of New York City Health Department, 132  
 in mental defectives, survey methods assessed for, 650  
 syndrome, Taussig-Bing, 306  
 transposition complexes in rats, 707  
 2,752 cases of, electrocardiogram in studies of, 604-610  
 congenital and mongolism, study of parentage in, 775  
 contractile force of, utilization of glucose for, species differences in, 1104  
 and cooling, 939  
 focal, arrhythmias due to, 1091  
 depression of, by quinidine, treatment for, 1099  
 dilution curves in study of, 706  
 echinococcal, 520-528  
 electric center of, anatomic location of, 773  
 energy production disturbances, 640-645  
 enlargement  
 in atrial flutter, 508  
 and pericarditis, 33, 41  
 in selection for mitral commissurotomy, 14-16  
 due to tetralogy of Fallot, atypical, 231, 233, 235  
 with and/or without failure, and digitalis, 294

epinephrine in, adrenolytic action against, by synthetic steroid alkamines, 142  
 exclusion, parabiotic, 789  
 hemodynamics in congestive failure, and in fluid retention induced with ACTH and cortisone, 1047-1055  
 and hypertensive blood pressure in subjects over sixty-five, 747

hypodynamic, 27  
 of infant and postnatal adaptation of circulation, 930  
 inflammatory reaction in, serologic effects of, 682  
 initiation and conduction of impulse in, in human, current conception and theory of Kent, 176  
 involvement of  
 in collagen diseases, 904, 918  
 in rheumatic fever, 795-805  
 left  
 congenital anomalies, 813-818  
 electrocardiography in, 73-80  
 hemodynamics of, and cardiac cycle, 69-80  
 and lung pressure-volume relationships in, 141-142  
 malformations of  
 cardiovascular, in infant, and age of maternal mother, 649  
 causative factors, 1085  
 cyanotic types, 710  
 with induced congenital transposition complexes, in rats, 707

metabolism  
 in congestive failure, and acetyl strophanthidin, 755  
 and myocardial ischemia, 758  
 and Mercurate, 54  
 motion, in cardiovascular radiography, 1034-1041  
 muscle cell damage in, serum glutamic oxalacetic transaminase as index of, 735  
 muscle  
 contractility, 121, 1105  
 creatine content of biopsied human and rabbit, 781  
 damage to, in obstructive coronary disease, 530-541  
 and digitalis, 121, 291  
 inflammatory and degenerative diseases of, 291  
 vs. liver, energy producing in, 635  
 and myocardial metabolism, 636-646  
 and obesity, 1089  
 potassium flux in, effluorographic determination of, 788  
 slices, respiration of and cardiac steroids and/or epinephrine, 310  
 of newborn, and postnatal adaptation of circulation, 930  
 non-rhythmic, in rabbit and transmission of impulse from ventricle to atrium, 140  
 pain, mechanisms and relief, 764

**Heart (Cont'd)**

- parabiotic exclusion of, blood pressure during, harmonic analysis of, 789
- performance, central, and age of subject, 567-575
- in pericarditis, 30-31
- fluoroscopy for, 37
- of prematures, during and after postnatal adaptation of circulation, 930
- pressure pulse tracings in constrictive pericarditis and pericardial effusion, 142
- pretreatment of dog's with prostigmine or acetylcholine, and ventricular fibrillation, 620-623
- primary amyloid of, vs. constrictive pericarditis, similarities between, 827-832
- and prophylactic digitalization, 294
- reversible functional abnormalities in and serum enzyme levels, 166
- right
  - carcinoïd syndrome, 1-6
  - cineangiogram during stage of filling, 201
  - circulatory by-pass of, 651
  - valvular lesions, 1-6
- size
  - and age of subject, 561, 573, 575
  - and cardioaortic fistula, 823
- strain
  - electrocardiogram and vectorcardiogram in, 657
  - intracardiac pressure values in, 656
- team approach to comprehensive care of, 720
- valvular lesions of, sodium content and excretion in, in dogs, 1087, 1095
- weight of and heart block, 87-88, 265-266
- work of
  - and age of subject, 575, 1006-1019
  - classifications for, 724
  - in congestive failure, and acetyl strophanthidin, 755
  - methods for estimating, 779, 1007-1020

**Heart block**

- and digitalis, 203
- electrocardiography in complete, 83-84, 261, 792
- forty-two year study of, 739
- hemodynamic studies in, 739
- as method for heart failure, experimental, in dogs, 82-89, 259-269
- pulmonary edema following, 268
- and weight of heart, 87-88, 265-266

*See also* Block

**Heart failure**

- due to chronic complete heart block, in dogs, 259-268
- congestive
  - and acetyl strophanthidin, 755
  - with active carditis, trans-
- aminase serum concentration in, 797, 800
- albuminuria in, 769
- antidiuretic effects following oxygen therapy in, 652
- blood volume in and after diuresis, 722
- cardiac metabolism in, 645-646
- and cardiocirculatory performance in atrial flutter, 507-518
- and choline theophyllinate, 653
- and carboxylase, 306
- due to cor pulmonale, 1057-1063
- and cortisone, 696
- and Diamox, 652
- and digitalis, 62, 201
- and digoxin, 726
- and dyspnea, 724
- edema in, 630-633
- extracellular fluid due to edema in, 631
- hemodynamic changes due to, 703, 1047-1056
- hepatogular reflux test in, 133
- with hypertension, cerebral hemodynamics of, 653
- in idiopathic cardiac hypertrophy, 935
- influence of on pulsus alternans, 60-62
- liver in, 1087
- and Mercurate, 55
- mitral surgery for, 22
- peripheral venoconstriction in, 790
- pulmonary embolism in, 785 and pulsus alternans, 60-62
- radioiodine for incapacitated euthyroid patients with, 937
- refractory edema due to, 1087
- and thromboembolism following mitral stenosis, after Dicumarol therapy, 984
- transcapillary migration of heavy water and thiocyanate ion in pulmonary circulation in, 653
- treatment of low salt syndrome in, using mercurial diuretics, 766
- with cyanosis, and peripheral vascular collapse, in symptomatology of occlusive thrombosis, 256
- and diuretic potency of xanthines, bioassay method in, 1086-1087
- and hypothermia, 128
- latent, circulatory dynamics in after digoxin, 773-774
- left atrial pressure after tilting in, 755
- with noncyanotic heart disease, 124-131
- periodic breathing in, 717
- potassium and digitalis relationships of, 121-122
- right ventricular maintenance of responses to, with me-

chanical left ventricle, in dog, 765-766

thiamine concentration in, 306

treatment for and body weight changes, 897-902

Valsalva maneuver in, abnormal phase II response to, 686

voltage reduction in limb, and precordial leads, 1090

excretion in after exercise, 90-94

**Heart rate**

- and age of subject, 558, 561-563, 570
- in atrial flutter, 513-518
- carotid sinus stimulation on, 653
- and intracranial compression, in dog, 886-888
- in mitral commissurotomy and stenosis, 14-16, 22
- and membrane potentials, electrocardiography in, 133-134
- and myocardial infarction, 209-213
- and nitroglycerine, 596
- and skin exposure to radiant heat, 1103
- slow, molar sodium lactate in treatment of, 678

**Heart sound**

- first, influence of P-R interval on, 1090
- first and opening snap, phonocardiography in analyses of time variation factors, 772
- first and second, splitting of, 146
- graphic recording of, and vibrations by new electronic pickup, 716
- in heart block, after exercise, 261-262

**Hemangiomatosis, hereditary**, 306

**Hematoma, dissecting**, 1068-1078

**Hemiplegia**, and coarctation of aorta, 1082

**Hemodynamics**

- in arterial hypertension and 1-hydrazinophthalazine, 929
- in atrial flutter converted to sinus rhythm, 514-518
- cerebral
  - in heart failure with hypertension, 653
  - and Phenoxybenzamine for blood pressure reduction, 144
- circulatory, in Paget's disease, after exercise, 215-218
- in congestive heart failure, 703-1047-1056
- and cortisone, 696
- in denervated kidney, 142
- of left side of heart in mitral stenosis, 69-80
- in mitral commissurotomy, 9-12, 20-22
- renal
  - in constrictive pericarditis, 140
  - of head-up tilted position and ambulation, 928-929
  - in hypertension due to norepinephrine, 105-106

after neurohypophyseotomy, 933  
after vasopressor agents in shock, 96-107  
in rheumatic disease and cortisone, 696  
of tricuspid stenosis, 792  
*See also Circulation*

**Hemopericardium**  
and cholesterol pericarditis, 193, 197  
and myocardial rupture associated with anticoagulant therapy, 309

**Hemopesis**, and Merpurate, in dogs, 53-54

**Hemoptysis**, and absence of main branch of pulmonary artery, congenital, 651

**Hemorrhage**  
in mitral commissurotomy after Dicumarol therapy, 982-983  
shock due to  
and myocardial metabolism, 641  
renal hemodynamic response to vasopressor agents in, 98-107  
subarachnoid, factors in spontaneous, 950  
from vasa vasorum, dissecting hematomas begin with, 1071

**Hemosiderosis**, pulmonary, in mitral stenosis, 944

**Heparin**  
as anticoagulant, 774-775  
of aortic intima, in atherosclerotic areas, 683  
blocking effect of, on evolution of serum-induced venous thrombosis, in dogs, 553-555  
*-butacaine complex* and aortic atherosclerosis, 948  
and coronary atherosclerosis, intermittent therapy for, 701  
and coronary insufficiency, 938  
in experimental hypercholesterolemia, in rabbits, 305  
extraction of, from human tissues, 305  
and myocardial infarction, 1084  
for relief of angina pectoris, lipemia-induced, 735  
and similar polyanionic compounds as anticoagulants, 774-775

**Hepatitis**  
cholangiolitic and drug sensitization, 922-923

**Heredity**  
deficiency of labile factor and coagulation defect, 1084  
in hypertension in industrial workers, 1094

**Hernia**, due to ground substance disorder, 191

**Hexamethonium**  
in hypertension, 139, 759  
with angiotonin, 545-547, 550  
with hydralazine, 138  
with 1-hydrazinophthalazine, 137  
malignant, 138

and Pentapyrrolidinium, 313  
with reserpine, 1094  
hypotensive action of, 145  
with Rauwolfia serpentina, 224  
influence of on reactivity to pressor agents, in hypertension, 974-979  
and pulmonary circulation, 136  
in mitral stenosis, 1108

**Hines and Brown**, cold pressor test, 963-964, 967

**H-I segment** and nitroglycerine, 591

**Histamine**  
for protection against hypoxemic edema, 1100  
skin injury due to vascular responses in, 1099

**Homograft**, replacement, in treatment of arteriosclerotic occlusive disease of lower extremities, 693

**Hormone**  
adrenal medullary action of on sodium, potassium and water excretion in man, 1092  
factors in renal and cardiovascular disease, 1093  
posterior pituitary antiuretic substance, increase in urine due to excretion of, 652  
secretion test and iodine fixation test, simultaneous for assessment of thyroid function, 136  
therapy, for acute rheumatic fever, 928

**H wave**  
dorsally directed, I deflection and J and K waves after, 875  
RI and RJ waves following in sinus rhythm, 867

**Hydralazine**  
experimental disease of, 688  
and hexamethonium with Rauwolfia, for hypertension, 137  
in management of hypertensive disease, 138  
in elderly patients, 138-139  
vs. low-sodium diet, 311  
with reserpine, 1094  
with Rauwolfia serpentina, hypotensive action of, 224

**Hydrazine**  
for hypertension, 139

**Hydrazinophthalazine**, 1  
hemodynamic effects of in arterial hypertension, 929  
and hexamethonium, control of hypertension with, 137

**Hydrochloride**, phenylephrine, in paroxysmal supraventricular tachycardia, 1101

**Hydrocortisone**, electrolyte response to, in serum and urine, 928

**17-Hydroxycorticosteroids**  
circulating concentrations of, in rheumatic fever, 943  
plasma content of, effect of epinephrine on, 145

**Hyperadrenalinism**, clinical signs of, due to ACTH therapy in rheumatic fever, 892

**Hypercatecholemia**  
and cardiac damage in renal insufficiency, 762  
and heparin on aortic atherosclerosis, 305

**Hyperlipidemia** and high vegetable fat diet, 780

**Hypernatremia**, clinical syndromes associated with, 931

**Hyperpotassemia**  
of diabetic acidosis, electrocardiogram in, 678  
and hypopotassemia, electrocardiographic patterns in, 738

**Hypersensitivity**, arteritis due to, 1066

**Hypertension**  
in adrenalectomized rats after steroid administration, 313  
with anomalous renal artery in infancy, 928  
and aortic dissection, 1070, 1073, 1076  
arterial  
hemodynamic effects of 1-hydrazinophthalazine in, 929  
management of, 312  
and Takayasu syndrome, 140  
and arteriosclerotic cerebral vascular disease, and Serrapil, 136-137  
and arteriosclerotic heart disease, hemodynamics of, in atrial flutter, 508  
and bilateral pulmonary edema, 452-453  
blood pressure in  
and ambulation, 928-929  
and angiotonin, 545-547, 550  
and Aprésoline, 137  
and Arfonad, 654  
cerebral, 1094  
and drugs for, 759  
and depressor agents, 543-551  
and hexamethonium, 137, 138, 139, 545-551, 759  
and Hyphen, 139  
and pentolinium tartrate, 690, 777  
and position, 543-551, 928-929  
and pressor agents, reactivity to, 974-979  
and renin and antrenin, in dogs, 786  
and cardiovascular collapse in poliomyelitis, 987-991  
and renal function, during therapy, 728  
renal lesions, in rats, 776  
and carotid-sinus mechanisms, 451  
cerebral  
and renal denervation in rabbit, 139  
and coronary occlusion, 1088  
and Dibozane, 929  
diet in, 311  
digital blood vessels in physical work of, 748  
Dihydralazine for, 139

**Hypertension (Cont'd)**  
 dissecting aneurysm due to, 190  
 in elderly patients, treatment of, 138-139  
 epinephrine and norepinephrine in plasma concentration of, 746  
 ganglion blockers and reserpine combination therapy with, 698  
 in hamster, experimental, 136  
 heart failure associated with cerebral hemodynamics in, and response to treatment, 663  
 heredity in, in industrial workers, 1094  
 humoral transmission of effects of vagal stimulation, new technic to study, 312  
 hydralazine vs. low sodium diet in treatment of, 311  
 malignant due to obstruction of renal artery, 1094  
 trace metal urine concentrations in, after treatment, 758-759  
 treated by sympathectomy, ten year follow-up of, 749 and mecamylamine, 707, 751  
 neurogenic, 543-551  
 due to norepinephrine, and renal hemodynamic response to infusion, 105-106  
 parenteral reserpine in management of, 694-695  
 and prehypertensives, consistency of response to psychologic stress in, 719  
 primary, 675  
 production of by constriction of carotid sinus area in dogs, 786  
 proteinuria and retinal vascular reactivity, relationship between, 65, 67  
 pulmonary, 931  
 in atrial flutter of congestive failure, 515-518  
 carotid sinus stimulation in, 653  
 with congestive failure, mitral surgery for, 13, 17, 22  
 with increased pulmonary resistance, 316  
 in mitral stenosis, 1107, 1108 with patent ductus arteriosus, 766, 778-779  
 and pyelonephritis, masquerading as toxemia of pregnancy, 704  
 radiological signs in, 150 and *Rauwolfa serpentina*, 137, 221-225  
 with hydralazine, 700  
 with reserpamine, 732  
 renal  
 baroreceptor function in experimental, 743  
 following femoral arteriovenous fistula, 1092  
 dynamics of acute failure of left ventricle during, 757 experimental, 732  
 renoprival and electrolyte disturbances following nephrectomy, 910  
 right atrial cardiac catheterization and postmortem findings, 829-832  
 right heart, cardiovascular anomalies associated with, 203  
 right ventricular and pulmonary arterial, 817-818  
 salt and water balance in experimental rats, 709-710  
 in sinus rhythm, 515-518  
 supradiaphragmatic, splanchnic section for, 311-312  
 treatment for, review, 138  
 venous, in congestive heart failure, 133  
 venous, costophrenic septal lines in, 807-811  
**Hyperthermia**, in fatal cardiovascular collapse of acute poliomyelitis, 988, 991  
**Hyperthyroidism** and pericarditis, 31  
**Hypertrophy**  
 cardiac  
 idiopathic, 748, 935  
 myocardial, after heart block, 88, 266-269  
 pulmonary, 944  
 ventricular  
 in atrial septal defect of Fallot, 231, 233  
 and cardioaortic fistula, 823, 825  
 electrocardiogram for signs of, 135  
 and occlusive auricular thrombi, 252  
 with idiopathic arteriosclerosis of pulmonary arterial tree, 687  
**Hyperventilation**, effect of on various arrhythmias, 271-276  
**Hypoatremia**  
 and urinary hypertonic salt excretion, effect of exercise on, in congestive heart failure, 94  
**Hypoferremia** due to coronary occlusion and traumatic injuries, 133  
**Hypopotassemia**, electrocardiogram and, 781  
**Hypoproteinemia**  
 edema in  
 and digitalis, 293  
 and pericarditis, 31  
**Hypoprothrombinemia**, Dicumarol-induced, and convertin deficiency, 555  
**Hypotensin**, 221  
**Hypotension**  
 blocking agents, 452  
 and dietary deprivation of potassium, 311  
 hemorrhagic and antibiotics, 931-932  
 hexamethonium-induced physiologic alterations associated with, 146  
 in myocardial infarction, metabolic responses and mor-  
 tality in elderly subjects, 207-213  
**Hypothermia**  
 blood response to, bleeding and clotting time, in dogs, 305  
 cardiovascular effects of, 680  
 and heart failure, 128  
 mechanisms for, 449  
 and myocardial metabolism, 642-643  
 rapid rewarming following acute myocardial failure during, in dog, 679  
 vascular responses to, 450  
**Hypoxia**  
 pulmonary vascular effects of, in dog, 140  
 and respiration of newborn infants, 1104  
 tobacco smoking and nicotine effects on, 315  
**H wave**, response to nitroglycerine, 591-594, 598  
**IJ wave**, in three plane ballistocardiography, 869-881  
**Infant**  
 cardiac murmur in first year of life, 1102  
 coarctation of aorta in  
 electrical axis in, 605, 609  
 medical management of, 702  
 congenital absence of spleen, with congenital heart disease, 649  
 congenital malformations of cardiovascular system, study of 6,053 during first year of life, 649  
 heart, during and after postnatal adaptation of circulation, 930  
 hypertension in, with anomalous renal artery, 928  
 noncyanotic and atypical tetralogy of Fallot, 230-237  
 surgical closure of patent ductus arteriosus associated with pulmonary hypertension, 766  
**Infarction**  
 atrial  
 in anterior wall, 307  
 and mural thrombus, 244  
 of left ventricle  
 high thoracic leads for diagnosis of, 751  
 muscle, and coronary insufficiency vs. myocardial ischemia, 532-533  
 and adrenal insufficiency in, 745  
 anterior and posterior, combined, 1089  
 myocardial  
 anticoagulant therapy in, 306, 666, 731-732, 745  
 and caloric intake, 211-213, 656  
 bishydroxycoumarin therapy in, 145  
 and body weight, 211-213  
 cardiac rupture following, 1088 and cerebral vascular thrombosis, 701

## INDEX

in chair treatment, 656  
and clearance of radioiodine from extremities, 677  
and complication, 697  
after coronary occlusion in dogs, 656  
and dicumarol, massive intermittent dose method, 720  
and digitalis, 293  
in elderly subjects, 207-213  
electrocardiograms after eating, 656  
electrocardiogram vs. vectorcardiogram in, 711  
electrocardiography in, 307, 756, 1089  
endocarditis in mural thrombus after, 242-245  
epidemiologic aspects of, 738  
in guinea pig, hamster, mouse and rat, 306  
and intramuscular aqueous heparin, 1084  
with mural thrombus, 246, 256  
non-fatal, in subjects over sixty, 765  
and occlusive auricular thrombi, 256  
painless, in psychotic patients, 740  
with peripheral embolization, 246  
Phenylindandenedione for, 762  
prodromal syndrome of, 753  
with pulmonary embolization, 246  
rupture following, 1088  
and serum glutamic oxalacetic transaminase, 161-167, 729  
and silent electrocardiograms, 711  
and spatial vectorcardiogram, 711  
stress in, 727  
sudden changes in weather and occurrence of, 656  
and survival, 307, 731-732  
transaminase test in detection of, 729  
unsuspected cases of acute, 677  
urinary coproporphyrins following, 1096-1097  
pulmonary and pericarditis, serum transaminase levels in experimental, 712  
ventricular in anterior and lateral, 307 of base, 751

**Infection** and infarction concomitantly, in heart, 242  
and pericarditis, 30, 41

**Infectious hepatitis**, cardiovascular studies during acute, 1098

**Inositol**, activity of vs. lipid inhibitor in brain, 144

**Insufficiency** adrenal in myocardial infarction and shock, 745  
aortic in aortic dissection, 1076, 1077

one hundred cases of severe, 773  
and rheumatoid spondylitis, 770  
unusual clinical features, 719

**coronary artery**, 183  
de-epicardialization for, 955-961  
and Dicumarol, 938  
and ethyl alcohol, 938  
and Ergonovine stress test studies, 780  
and intermediate coronary artery syndrome, 656  
transaminase activity following, 736  
vasodilator drugs for, 169-175, 938

**kidney** and cardiac damage in, 762 and hypercholesterolemia, 762 with respiratory infections, 1096

of mitral valve ballistocardiogram in, 278-285  
clinical and graphic, 718  
dynamics of, 149  
hodynodynamics of, 27  
kinetocardiograms in, 278-285  
and total circumferential stature of mitral ring, 712

physical, Thorn tests in analysis of, 146

pulmonary and radioiodine, 718

syndrome of intermittent, of basilar arterial system, 1101

tricuspid atrial fibrillation and atrial flutter, 518  
in mitral commissurotomy selection, 14-16

**Insulin** vs. adrenaline, increase of total leukocyte count due to, 146

**Intermediate coronary syndrome**, description of, 654

**Intestine** musculature of, stimulating action of *Rauwolfia serpentina*, 222  
small, carcinoid of, with metastases of liver, 1-6

**Iodoacetate** and electrical activities of isolated perfused frog heart, 733  
and electrical response of myocardium, 1100

**Ion**, transport, in cardiac muscle, 939

**Irradiation**, and carotid-sinus syndrome, 938

**Ischemia** cause of, 448  
crisis induced by Piperoxan, myocardial and hypertensive, 313  
localized, differentiation of from diffuse or physiologic, 534-541  
and myocardial metabolism, 641, 758  
and transaminase activity, 165, 166-167

sensory nerve, as part of shoulder - hand syndrome, 737  
ulcer due to, and lesions specific to hypertensive disease, 239-241

**Isoajmaline** or neoajmaline, 221

**Iso-rauhimbine**, 221

**I wave** and J wave, and RI and RJ waves of ballistocardiogram, 866  
and nitroglycerine, 591-594

**Jaundice** unexplained, exploratory celiotomy for, circulatory complications following, 921-926

**J wave** response to nitroglycerine, 591-594, 598

**Kempner diet**, in hypertension, 311, 654

**Kent's theory**, of conduction in heart, 177-183

**Ketone** and myocardial metabolism, 637-646  
in myocardial ischemia, 758

**Khellin**, and coronary insufficiency, 938

**Kidney** anomalous arterial supply to, and hypertension, in infancy, 928  
blood flow during shock, after vasopressor agents, 99-107  
in congestive heart failure and cocarboxylase, 306  
conservation of sodium in dying elderly subjects with myocardial infarction, 210-211, 213  
damage due to Lysol, renal hemodynamic response to norepinephrine during shock, 104  
denervation, in rabbit, effects of on cerebral hypertension, 139  
disease of, hormonal factors in experimental, 1093  
function and circulation in mitral stenosis, 698  
and degenerative vascular disease, 64-67

**hodynamics** in head-up tilted position and ambulation, in hypertension, 928-929  
and hematocrit increases, 142  
during shock, 98-107

hypertension due to disease of, and blood pressure after ganglionic blockade, 548

insufficiency and cardiac damage in, 762  
and hypercholesterolemia, 762  
with respiratory infections, 1096

involvement in systemic lupus erythematosus, 904

response, to nonshocking hemorrhage, 1093

**Kidney (Cont'd)**  
 shunt, in rats, 140  
 Turkel needle biopsies, review of one hundred successful, 756-757  
 thiamine concentration in, in congestive heart failure, 306  
 tubule, enzymatic inhibitions in, due to Mercurophylline and Merchydrin, 930-931  
 vasoconstriction in and Dibenziline injection and norepinephrine, 104

**Kinetocardiogram**, in mitral insufficiency and stenosis, 280-285

**Kinetocardiography** in mitral valve disease, 700

**K-Strophantoside**, 118

**K wave** ballistocardiogram, 875, 877 and nitroglycerine, 593, 594

**Kyphoscoliosis** cardiac catheterization in, and pulmonary function studies, 141 and dissecting aneurysm, 190, 191

**Kymography**, in echinococcus disease of heart, 525

**Lactate** cardiac rhythmicity and molar sodium, 678 metabolism cardiac, in myocardial ischemia, 758 myocardial, 637-646

**Lasker Awards**, 951

**Lathyrism** due to faulty diet, 185, 191

**Lanatoside A**, 117

**Lanatoside C**, 117-118, 119, 122 U.S.P., 298, 301 initial and maintenance therapy dosage, 297

**Lead** in arrhythmias and hyperventilation, 272-275 esophageal and standard, simultaneous in cardiac arrhythmia, 733 left precordial in atypical tetralogy of Fallot, 231 Lewis, in atrial fibrillation, 510 precordial and intracardiac pressure valves in right heart strain, 656 and reduction of voltage in limb, in congestive heart failure, 1090 precordial unipolar in echinococcus disease of left ventricle, 522, 523, 526-528 right precordial RS-T segment in and heart disease, 135 scalar coefficients for, vs. true heart vector, 844

**II** and abnormal RI and RJ waves, 860 electrocardiogram and three-plane ballistocardiogram, 872, 874

**II and III**, in atrial flutter, 509-512

**V<sub>2</sub>** in atrial flutter-fibrillation, 511-512 negative T in, 134 unipolar limb and precordial left axis deviation in, 607, 610 in tricuspid atresia and single ventricle, 615-618

**vectorcardiographic** in different systems, 656 vectors and the Burger triangle, meaning of, 134 in ventricular activity, of dogs, 658

**Left ventricular-right atrial shunt syndrome**, 813-818

**Leg** lower, syndrome, pathogenesis of and study of phlebodynamics, 744 vascular responses to epinephrine, norepinephrine after Dibenziline, 727 See also Extremity

**Lesion** of mitral stenosis and insufficiency, and mitral commissurotomy, 28

**Levoangiocardiogram**, of left ventricle, echinococcus disease of, 522

**Levocardia**, situs inversus with left axis deviation and cyanosis, 610

**Ligation** of coronary artery technic of, for induced myocardial infarction, 162 pulmonary vein and artery, bronchospirometric determinations of pulmonary function in dogs after, 733

**Limb** thrombosis following trauma to, 949 See also Extremity; Leg

**Lindau's disease**, transmission of, 306

**Lipemia**, lipoprotein determinations in with paper electrophoresis, 949

**Lipid** of aortic intima in atherosclerotic areas, 683 circulating, patterns during pregnancy and puerperum, 1095 concentration of, within pericardial sac, and constrictive pericarditis due to, 197 inhibitor in brain vs. activity of soy bean inositol phosphatide inhibitor, 144 in experimental hypercholesterolemia, 305 serum in advanced coronary artery disease, 695 and gonadal steroids, 688 patterns during pregnancy and puerperum, 1095

**Liquid**, and meningococcal endotoxin cardiac lesions in rabbits induced with, 693

**Liver** blood flow measurement of, in burn patients, 746 rate and colloidal radiogold disappearance rate, 932 central lobular atrophy following heart block, 268

cocarboxylase concentration in, 306 in congestive heart failure, 1087 damage and serum glutamic oxalacetic transaminase, 161, 795 dysfunction and pericarditis, 40 function in mitral stenosis, 699 and rheumatic fever serum transaminase concentration, 803 and Murpurate, 54 metastases to, and carcinoid of small intestine, 1-6 passive congestion of, due to heart block, 88 postceliotomy, and unexplained jaundice, 923-924 thiamine concentration in, in congestive heart failure, 306

**L-triiodothyronine**, and electrical response of myocardium, 1100

**Lung** blood flow and volume during anoxia, 140 blood supply to from aorta as collateral circulation to heart, 681 costophrenic septal lines in lower portion of, 811 diseases of, and digitalis, 293, 294 edema and cardiovascular collapse in acute poliomyelitis, 987-989 following heart block, 268 and heart pressure-volume relationships in, 141-142 honeycomb and mitral stenosis in scleroderma, 1108 infections and renal insufficiency, 1096 and serum concentrations of glutamic oxalacetic transaminase, 795 vascularity, increased and atypical tetralogy of Fallot, 230-237

**Lupus erythematosus** disseminated, and pericarditis, 31 systemic arteritis associated with, 1066 cardiovascular manifestations for, 904-908

**Lutembacher's syndrome**, 126-127, 132

**Magnesium** balance, during recovery from congestive heart failure, 1057-1063

in cerebrospinal fluid, 1104  
in rats with hypertension, 138

**Malaria**, plasmodial arteritis due to, 1066

**Malignancy**  
and pericarditis, 31-32  
superficial phlebitis in diseases with, phenylbutazone for, S34, 835

**Marfan's syndrome**  
and aortic dissection, 1070  
cardiovascular anomalies in, 190, 191

**Marie-Strumpell arthritis** and aortic insufficiency, 770

**Martorell's syndrome**, lumbar sympathectomy in treatment of, 239-241

**Master two-step test**  
in coronary insufficiency of vasodilator drugs, 170-175  
in normotensive patients with coronary disease, physiologic response to, 721  
in 116 normal males, physiologic response to, 705

**Medionecrosis**, cystic, 1065, 1071

**Medionecrosis cystica**, 1071

**Mecamylamine** in hypertension, 707, 751

**Mecuhydriin**,  
diuretic potency of, in congestive heart failure, 1086-1087  
in normal dogs, 722

**Medulla**, involvement of and cardiovascular collapse in acute poliomyelitis, 990, 991-992

**Mental disorders**, depression of, due to reserpine, in hypertensives, 929

**Mercaptomerin sodium**, rectal suppository, diuretic effect and local tolerance of, 143-144

**Merpurate**, 52, 55-59

**Metamine**  
for angina pectoris, 767  
and coronary insufficiency, 938  
and exercise, 169-175  
long term study of, 720

**Methylene blue** vs. T-1824 in study of heart disease, 706

**Miopressin**, 782

**Mitral valve**  
calcification of, 28  
commissurotomy  
in class IV cardiae, 694  
and Dicumarol, 981-985  
fifty patients with, five or more years after, 726  
methods for evaluation, 7-29  
selection for, 942  
congenital anomalies of, 744  
coronary blood flow and myocardial metabolism in, 762  
disease of, 1098  
ballistocardiographic study of, 676-677, 700  
cineangiogram of alteration in course of coronary sinus in, 201  
electrocardiogram in, 770  
kinetocardiography in 700

left atrial pulse pressure in, 715  
in patients over 50, 148  
phonocardiographic study of, 772  
spatial vectorcardiogram in, 770

insufficiency of  
ballistocardiogram in, 278-285  
clinical and graphic, 718  
dynamics of, 149  
kinetocardiograms in, 278-285  
and total circumferential stature of mitral ring, 712

lesions of pulmonary capillary pressure curves in, 930

obstruction of, and indirect left atrial pressure tracings, 943

regurgitation  
and contour of pulmonary arterial wedge pressure curve, 930  
diagnosis of by cardioangiography, 777

scarring of, in occlusive auricular thrombi, 253

stenosis of  
arterial pulse pressures in, 932

Aschoff bodies in left auricular appendages in, 1107

and auricular fibrillation, 76

ballistocardiograph in, 858-867

and cardiac catheterization, 70-71

clinical and graphic, 718

comparison of methods for measurement of, 1107

with congestive heart failure, and digoxin, 726

devolutionary pattern of isolated, 740

electrocardiography in left cardiac cycle, 73-80

exercise tolerance test in, 946

hemodynamics of, in atrial flutter, 508

hepatic circulation and function in, 699

implication of first sharp sound in, 753

kinetocardiograms in, 278-285

and mitral valvulotomy, 70-71

and opacification of coronary sinus, 203

oxygen removal rate after exercise, 774

and pulmonary artery pressure, 858-867

pulmonary artery pulse pressures in, 932

pulmonary hemosiderosis in, 944

pulmonary hypertension in, 1107, 1108

rheumatic auriculitis associated with, 714

right heart strain in, 1106

roentgenograms of, 807-811

and surgery, 8-9, 13, 680, 943

technic for opening of, 948

test for alteration of cardiodynamics of, 714

water excretion, after exercise, 92

valvotomy, angiocardiology in, 778

vectorcardiography in, 1106

**Moenckeberg's sclerosis**, 1065

**Mongoloid**  
and congenital heart disease, 650, 775  
in infants, 649

**Morphine**  
and coronary insufficiency, 938  
and pulmonary emphysema, 314-315

**Mortality**  
in mitral commissurotomy  
in class IV cardiae, 694  
selection of patients, 7-29

in myocardial infarction, 207-213

in staphylococcal bacterial endocarditis, 1086

in transventricular vs. transaortic commissurotomy for rheumatic aortic stenosis, 785

**Murmur**  
acyanotic cardiac lesions with continuous, simulation of patent ductus arteriosus, 747

of aortic insufficiency, and location of intimal tear, 1076

in atypical tetralogy of Fallot, 235

auricular diastolic, in heart block, chronic complete, 262

and cardioaortic fistula, 823-825

double mitral, rejection of patient for mitral commissurotomy due to, 22, 28

in first year of life, 1102

Graham-Steel, in selection for mitral commissurotomy, 14-16

in mitral insufficiency, 279

in noncyanotic heart disease with heart failure, 124-131

and occlusive auricular thrombi, 256

and pericarditis, 33

in rheumatic heart disease, 941

tricuspid of stenosis, 761

**Muscle**  
of heart  
contractility of, and digitalis, 121

creatine content, 781

damage to, in obstructive coronary disease, 530-541

degenerative and inflammatory diseases of, and digitalis, 291

ion transport in, 939

vs. liver, energy producing mechanisms in, 635

and myocardial metabolism, 636-646

potassium flux in, effluographic determination of, 788

temperature and glucose utilization for contractile force, in cat, 1105

**Muscle (Cont'd)**

- slices, effect of cardiac steroids and epinephrine on respiration of, 310
- infarction of
  - and coronary insufficiency vs. myocardial ischemia, 532-533
  - and serum glutamic oxalacetic transaminase, 161-167
  - and lesions of heart valves in Marfan's syndrome, 190
- skeletal
  - in dermatomyositis, 914-915
  - and serum glutamic oxalacetic transaminase concentration, 795
  - striated, involvement of, in collagen diseases, 918
  - temperature of, following Priscoline injection, 1101
- Myasthenia gravis**, 936
- Myeloma**, multiple, systematized amyloidosis with, 935
- Myocarditis**
  - diphtheritic, and use of digitalis, 291
  - and systemic lupus erythematosus, electrocardiogram of, 907
  - viral in rheumatic, glutamic oxalacetic transaminase serum concentration, 797
- Myocardium**
  - defective contraction of, congestive heart failure due to and digitalis, 291
  - and digitalis, 119
  - in echinococcus disease of left ventricle, 520-528
  - efficiency of, after complete heart block, 265
  - electrical response of, to inhibitors, 1100
  - failure, during rapid rewarming following hypothermia in dog, 679
  - functional inefficiency of constrictive pericarditis due to, 37, 41
  - infarction of
    - and adrenal insufficiency in, 745
    - anterior and posterior, combined, 1089
    - anticoagulant therapy in, 306, 656, 731-732, 745
    - bishydroxycoumarin therapy in, 145
    - and body weight, 211-213
    - and caloric intake, 211-213
    - and electrocardiographic patterns, 307
    - cardiac rupture following, 1088
    - and cerebral vascular thrombosis, 701
    - in chair treatment, 656
    - and clearance of radioiodine from extremities, 677
    - and complication, 697
    - and coronary insufficiency, 133
    - and coronary occlusion, 133, 656
    - and dicoumerol, massive intermittent dose method, 720
    - and digitalis, 293
    - in elderly subjects, 207-213
    - electrocardiograms after eating, 656
    - electrocardiographic patterns in patients with second, 307
    - endocarditis in mural thrombus after, 242-245
    - epidemiologic aspects of, 738
    - in guinea pig, hamster, mouse and rat, 306
    - and heparin, 1084
    - and intramuscular aqueous heparin, 1084
    - with mural thrombus, 246, 256
    - non-fatal, in subjects over sixty, 765
    - and occlusive auricular thrombi, 256
    - painless, in psychotic patients, 740
    - and pericarditis, 30-31
    - with peripheral embolization, 246
    - Phenylindandione for, 762
    - prodromal syndrome of, 753
    - with pulmonary embolization, 246
    - rupture following, 1088
    - and serum glutamic oxalacetic transaminase, 161-167, 729
    - shock due to renal hemodynamic response to norepinephrine during treatment of, 103
    - and silent electrocardiograms, 711
    - and spatial vectorcardiogram, 711
    - stress in, 727
    - sudden changes in weather and occurrence of, 656
    - and survival, 307, 731-732
    - transaminase test in detection of, 729
    - unsuspected cases of acute, 677
    - urinary coproporphyrins following, 1096-1097
    - insufficiency
      - and mitral commissurotomy, 7-29
      - and pulsus alternans, 62
    - involvement of
      - in collagen diseases, 903-918
      - in systemic lupus erythematosus, 904-908
    - ischemic
      - and coronary occlusion or insufficiency, 133
      - necrosis of, 1088
    - lesions of, nomenclature for, 533-534
    - metabolism of, 635-646
    - in hemorrhagic shock, 933
    - oxygen extraction by and aortic coronary sinus, 133
    - in poliomyelitis, 990, 992
    - primary amyloid infiltration of and constrictive pericarditis, similarities in, 827-832
    - right atrial function of, impairment of, 205
    - scarring of outer surface of and calcification of pericardium, 50
  - sensitivity to Adrenalin in the anxiety state, 136
  - Myxedema**
    - and aortic dissection, 1071
    - and digitalis, 294
    - and pericarditis, 31
    - cholesterol, 193, 197
  - Nausea**, due to Mercurate, 58
  - Necrosis**
    - anterior wall and systemic lupus erythematosus, 905
    - arteriolar, 1065
    - ischemic
      - and coronary occlusion and sufficiency, 133
      - of myocardium, 1088
    - myocardial
      - and glutamic oxalacetic transaminase, 161-167
      - recognition of and transaminase serum concentration changes, 795
      - tubular, acute renal failure due to, 923, 925-926
  - Nephrosis**, in unexplained jaundice, 926
  - Neoplasm**, pulmonary, phenylbutazone for superficial phlebitis in, 835
  - Nephrectomy** and renopival hypertension, 310
  - Nephritis**, acute, hypertension, elevated venous pressure and cardiac enlargement and use of digitalis, 293
  - Nephrotic syndrome**
    - corticotropin therapy for, 148
    - water and sodium diuresis during, 1092
    - with thrombosis of renal veins, 950
  - Nerve**
    - bilateral glossopharyngeal section, circulation and respiration after, 692
    - sensory, ischemia as part of shoulder-hand syndrome, 737
  - Nervous system**
    - general, soothing effects of Rauwolfia serpentina on, 222
    - vascular tumors of, hereditary, 306
  - Neurohypophysecomy** restoration of renal hemodynamics after, and pituitrin, pitocin, pitressin, 933
  - Newborn**
    - heart of
      - and Kent's alternate theory of conduction, 177-183
      - and postnatal adaptation of circulation, 930
    - respiration of and hypoxia, 1104
  - New York City Health Department**, medical rehabilitation program for children with congenital heart disease, 132
  - Nitrogen**
    - balance
      - gains in tissue weight associated with, 631
      - in myocardial infarction of elderly subjects, 211, 212

serum nonprotein and retinal vascular reactivity, relation between, 66

**Nitroglycerine**  
in angina pectoris, 767  
ballistocardiogram response to, 588-601  
and exercise response in coronary insufficiency, 169-175

**Nitroglyn**  
and coronary insufficiency, 938  
and exercise response in coronary insufficiency, 169-175

**Noradrenaline**  
and blood pressure in hypertensives, 546  
duration of, during cardiovascular collapse in acute bulbar poliomyelitis, 987-988, 992  
pressor responses to, in hypertension, 974-979  
for shock and clearance of radio-iodine from extremities in myocardial infarction, 678  
superficial phlebitis due to, phenylbutazone for, 835

**Norepinephrine**  
ambivalent action of in normotensive and during shock, 106-107  
and epinephrine  
after Dibenzyline, vascular responses in dog's hind leg to, 727  
plasma concentration in hypertension, 746  
and thyroid hormones, hemodynamic and metabolic interrelationships in activity of, 684  
and hearts, rabbits, perfused with Locke's solution, 1100  
in neurogenic control of blood vessels, 450-451  
renal hemodynamic response to, during shock, 98-107  
sodium and potassium exchanges associated with, 144

**Obesity**, and degenerative heart disease, 1089

**Obstruction**  
mitral valve  
and indirect left atrial pressure tracings, 943  
mitral commissurotomy for, 7-29  
renal artery and malignant hypertension, 1094

**Occlusion**  
arterial, and exercise before and after sympathectomy, 934  
caval, and section of bundle of His, femoral arterial pressure before, during, and after, 83  
circulatory, total and clinical hypothermia, 680  
coronary  
changes in RS-T segment and QRS complex following, 135 and collateral anastomoses, 682  
and coronary insufficiency, suggestive manifestations of, 133

experimental, using polyethylene tube, in dogs, 656  
failure of cardio-pericardio-pexy to protect experimental piglets against, 717  
in hypertension, 1088  
as method in experimental myocardial infarction, 306  
myocardial metabolic response to, 641-642  
and pericarditis, 30  
survival and rehabilitation after, 656  
and traumatic injuries, serum iron after, 133  
femoral artery and segmental aorto-iliac, 948  
of thoracic aorta, 1106

**Octyl nitrate**, and coronary insufficiency, 938

**Oedema**, in potassium deficiency, 1095

**Oliguria**  
in cardiac patients, diuresis response to oxygen therapy in, 652  
reversible, management of, 1095

**Osteitis deformans**, circulatory dynamics in, 215-218

**Ouabain**, 118  
and embryonic chicken hearts, 315  
and epinephrine, in heart muscle slices, 310  
oxygen consumption and beat following, in embryonic chicken heart, 315  
U.S.P., 298  
initial and maintenance therapy dosage, 297

**Overbreathing**. *See* Hyperventilation

**Owren's disease**, 1084

**Oximeter**  
arterial indicator-dilution curves with, in pulmonary stenosis and ventricular septal defect, 999, 1003  
cuvette, cardiac output by, under cyclopropane - oxygen and ether anesthesia, 1103  
direct recording ear for evaluating circulatory shunts, 788

**Oxygen**  
arteriovenous difference  
and age of subject, 573  
in atrial flutter, 508, 514, 516  
cerebral, and hypotension, 146  
after complete heart block, 85 in congestive heart failure, 1051-1054  
following exercise, 1102  
in mitral stenosis and mitral commissurotomy, 14-16  
in mitral stenosis, and mitral valvulotomy, 70  
in arms and legs affected by Paget's disease, 216-218  
and total occlusion of thoracic aorta, 1106  
in Cheyne-Stokes respiration, 933  
consumption  
and age, 575  
in atrial flutter, 508, 514, 516, 518

and Diamox, in pulmonary emphysema, 1096  
and Dibenzyline, 144  
in embryonic chicken hearts and Ouabain, 315  
and exercise, 1102  
and exercise in rheumatic disease, 774  
in heart block, in dog, surgically induced, 85, 265  
in infectious hepatitis, 1098  
influence of shock on, 931, 933  
in mitral stenosis and mitral commissurotomy, 14-16  
in Paget's disease, 216-218  
and Tromexan, 648  
extraction, blood  
after ACTH, 1049  
after cortisone, 1051  
and rapid temperature changes, 750  
at high pressure vs. epinephrine, pulmonary damage due to, 1100  
and hypothermic cardiac standstill, 937  
and myocardial metabolism, 637-646  
removal ratio, after exercise and in mitral stenosis, 774  
respiratory volume response to, in emphysema, 314-315  
saturation  
arterial, during apnea, 933  
blood, in pulmonary stenosis with atrial and ventricular septal defect, 1000-1001  
tension and blood flow of ischemic toes, effect of oscillating bed on, 705-706  
therapy in congestive heart failure, antidiuretic effects following, 652

**Oxygenator**, for artificial maintenance of cardiopulmonary function, 775

**Oxytetracycline**, for streptococcal sore throat and incidence of rheumatic fever, 1108

**Paget's disease**  
circulatory hemodynamics after exercise, 215-218  
and use of digitalis, 293

**Pain**  
chest, Tietze's syndrome in diagnosis of, 1101  
in dissection of aorta, 1073-1075  
heart, mechanisms and relief of, 764  
of occlusive arterial vascular disorders, control of, 1105

**Pancarditis**, rheumatic, serum glutamic oxalacetic transaminase in, 798-799

**Pancreas**, carcinoma of, phenylbutazone for superficial phlebitis in, 835

**Pancreatitis**, hemorrhagic, and unexplained jaundice, 926

**Papaverine**  
and coronary insufficiency, 938  
and exercise, 169-175

**Para aminohippuric acid**, tubular transport of, effect of renin on, 147

**Parahemophilia, 1084**

**Paralysis, bulbar, blood pressure in cardiovascular collapse of, 987**

**Paveril** and angina pectoris, 767 and coronary insufficiency, 938 and exercise, 169-175

**Pelvis**, involvement of, in Paget's disease, 216-218

**Penicillin** dibenzylethylenediamine in prevention of rheumatic fever, 148 oral vs. Benzathine penicillin in streptococcal prophylaxis, 1107 and streptococcal infections in rheumatic fever, 945

**Pentaerythritol tetranitrate. See Peritrate**

**Pentapyrrolidinium** and hexamethonium, comparison in hypertension, 313

**Pentobarbital**, vasomotor tone increase due to, 934

**Pentolinium tartrate** in hypertension, 690, 777

**Periarthritis nodosa, 1066** and pericarditis, 31

**Pericardectomy**, for cholesterol pericarditis, 193-197

**Pericarditis** and calcification of pericardium, 33, 36 cholesterol content of fluid and pericardectomy, 193-197 constrictive cardiac pulse pressure tracings in, 142 etiology factors of, 30-41 hemodynamics of, in atrial flutter, 508, 510 and primary amyloid of heart, similarities of, 827-832 renal hemodynamics in course of, 140 as sequel to acute benign pericarditis, 143 after X-ray therapy, 936 edemic, 33-37 electrocardiography in, 33 heart action of, fluoroscopy in, 37 idiopathic, simulating surgical abdomen, 763 and pulmonary infarction, experimental, serum transaminase levels in, 712 with systemic lupus erythematosus, 905 electrocardiogram of, 906

**Pericardium** calcification of, 44-51 cholesterol content of fluid in, 193-197 diverticula, 936 and epicardium involvement in systemic lupus erythematosus, 904 fluid level in, and microscopic appearance of, 196

**Peritrate** and angina pectoris, 767, 1099 and coronary insufficiency, 938 and exercise, 169-175

**Phenindione** clinical use of, 680-681

**Phenolsulfonphthalein**, excretion of, proteinuria, and retinal vascular reactivity relation between, 66, 67

**Phenoxybenzamine**, blood pressure reduction with, cerebral hemodynamic response to, 144

**Phenylbutazone** for superficial thrombophlebitis, 833-836

**Phenylindandione**, in management of acute myocardial infarction, 762

**Pheochromocytoma**, effect of benzdioxane on urine flow in, 689

**Pherentasins** and apergesoline, 137 inactivation of by antihypertensive drugs, 772

**Phonocardiogram** influence of P-R interval on first heart sound, 1090 in mitral insufficiency with musical quality to murmur, 279 spectral, auricular diastolic murmur detected with, 262

**Phonocardiography** and calibration of heart sounds and murmur, 939 spectral, current status of, 744 and time factors in first and opening snaps, 772

**Phosphate**, and myocardial metabolism, 635, 646

**Phosphatide**, inositol, and atherosclerosis, in rabbits, 1098

**Phosphocreatine** and myocardial metabolism, 646

**Phosphorus**, inorganic, myocardial extraction of, in dogs cooled to 30 C. and rapidly rewarmed to 36 C., 750

**Phosphorylation**, oxidative, digoxin and uncoupling of, 716

**Photofluorography**, and cardiovascular disease, detection of, 947

**Photomicrograph**, in de-epicardialization for angina pectoris, 959

**Photomicrography** in dissecting aneurysm produced by diet, 187, 189

**Phrenectomy** ballistocardiogram following, 927

**Pilocarpine**, salivary concentrations following, 1084

**Piperoxan**, hypertensive crisis and myocardial ischemia induced by, 313

**Pitocin**, after neurohypophysectomy for restoration of renal hemodynamics, 933

**Pitressin** depressor effect of, 139 and renal hemodynamics after neurohypophysectomy, 933 specificity of, 1092

**Pituitrin**, and restoration of renal hemodynamics, after neurohypophysectomy, 933

**Plasma** bleeding and clotting time, 305 blood, radioiodine levels in, 936 cholesterol, isotopic studies of, 948 cholinesterase activity in myocardial infarction, 308 epinephrine and norepinephrine in hypertension, 746 expanders and bleeding times, 1084 17-hydroxycorticosteroid in, influence of epinephrine on, 145 renal flow and ambulation, position, in hypertension, 928-929 and vasopressor agents during shock, 100, 105 volume in atrial flutter and in flutter converted to sinus rhythm, 512-516 during carbon dioxide breathing after splenectomy, 1103 in hypothermic dogs, 305

**Plethysmography**, for hand and finger blood flow, 1105

**P loop**, form and orientation of, 287

**Pneumonia**, viral, in rheumatic subjects, serum transaminase concentration in, 797

**Pneumonopexy**, and de-epicardialization for angina pectoris, 960

**Pneumoperitoneum**, ballistocardiogram following, 927

**Pneumothorax**, ballistocardiogram following, 927

**Poisoning**, digitalis, arrhythmias of, treatment, techniques for control of, 300-301

**Poliomyelitis**, acute bulbar, cardiovascular collapse in, 986-992

**Polyarteritis nodosa, 1066**

**Polyarthritides** and cardiac involvement, glutamic oxalacetic transaminase serum concentration, 797, 801

**Position (of subject)** and blood pressure in hypertension, 543-551 head-down, water, chloride, total mols, and creatinine excretions following, 1102 and response to hypotensive blocking agents, 452

**Postcardiotomy syndrome** in rheumatic disease, cortisone and ACTH as prophylactic and therapeutic agents in, 696

**Postcommissurotomy syndrome, 944** correlation of incidence and clinical pattern with histochemical analysis of atrial tissue and serologic studies, 741

**Posture**  
 variations in, and response to of neurogenic component in hypertension, 548-549  
 in sinus arrhythmia, 143  
 and symptom precipitation in occult auricular thrombi, 256-257

**Potassium**, hypo- and hyper-electrophysiologic explanation of electrocardiographic, 738

balance during recovery from congestive heart failure, 1057-1063

concentration, restricted dietary sodium and contents of terminal ileum and feces, 625-629

deficiency  
 edema in, 1065  
 myocardial changes in, 935

electrocardiogram and duration of systole, 657

excretion  
 adrenal medullary hormone action on, 1092  
 and hemorrhagic shock, 99, 101

flux in heart muscle, effluorgraphic determination of, 788

vs. K-strophantidose, and ectopic ventricular arrhythmia, 718-719

metabolism of, after mercurial diuretic in congestive heart failure, 897-902

myocardial extraction of, in dogs cooled to 30 C. and rapidly rewarmed to 36 C., 750

serum concentration  
 changes during treatment for congestive heart failure, 901  
 in hyperpotassium of diabetic acidosis, 678  
 and metabolic balance in myocardial infarction of elderly subjects, 210-211

and sodium, changes in total exchangeable, in hypertension, 138

urinary excretion of, in edematous subjects, 1099

**Potassium chloride**, and ectopic beats and rhythms, arteriovenous conduction disturbances, 678

**Precordium**, left, systolic retraction in and anterior movement of, 280-285

**Pregnancy**  
 and aortic dissection, 950  
 and rupture, 1070  
 changes due to, and spontaneous dissecting aneurysm, 190-191  
 circulatory adjustments to, 147  
 and coronary artery disease, 1086  
 plasma lipid and serum lipoprotein patterns during, 1095  
 toxemia of hypertension and pyelonephritis masquerading as, 704

**Premature**, heart of, during and after postnatal adaptation of circulation, 930

**Pressor**  
 intracranial, 449, 883-889  
 test, in intra-arterial response to cold immersion stimulus, 963-973

**Pressure**  
 aorta and left atrioventricular, simultaneous measurement of, 69-80  
 arterial  
 after femoral arteriovenous fistula, 1092  
 in heart block, complete, 85, 262-263  
 in infectious hepatitis, 1098  
 and intracranial compression in regulation of blood supply, 448-449  
 after miopressin, 782  
 in mitral commissurotomy, 14-16  
 and venous return, 1106  
 circulatory filling, and cardiac output, 1106  
 coronary artery, and contractile strength of right ventricle, in dogs, 768  
 femoral arterial, after heart block, chronic 83, 86  
 complete, 263  
 indirect left atrial tracings and mitral obstruction, 943  
 in infundibular chamber during cardiac catheterization, 764-765  
 intra-arterial response to cold immersion stimulus, 963-973

intracardiac  
 in heart strain, 656  
 in pulmonary stenosis with atrial and ventricular septal defects, 1000-1002  
 and timing of auricular sound, 939

intracranial, increase in, due to compression, 888

intrathoracic, use of intrathoracic pressure as index of, 141

left atrial, and tilting, in heart failure, 755

perfusion, and coronary flow, 1088

positive-negative respiration, circulatory dynamics of venous return during, 146

pulmonary arterial  
 in acyanotic heart disease, 1086  
 following exercise, 1102  
 measurement of, 940  
 in mitral commissurotomy, 14-16  
 in osteitis deformans, after exercise, 217-218  
 in patent ductus arteriosus, 1086  
 in pulmonary stenosis, 998

response to left atrial pressure in induced mitral stenosis, 932  
 and simultaneous electrocardiogram-ballistocardiogram recordings, 858-867  
 wedge, in mitral regurgitation, 930

right atrial, rapid injection of fluid in vena cava, 934

right auricular, after complete heart block, 87, 262

right ventricular  
 during cardiac catheterization, 764-765  
 in mitral commissurotomy, 14-16  
 in mitral commissurotomy, after exercise, 19  
 after rapid injection of fluids in vena cava, 934  
 in right heart, in congestive failure, 1054  
 in valvular pulmonic stenosis and intact interventricular septum, 699

systemic arterial, in mitral commissurotomy, 14-16

venacular  
 after ACTH, 1050, 1053  
 after cortisone, 1051  
 after heart block, chronic complete, 262-263

venous  
 in congestive heart failure, and digitalis, 1051, 1054  
 and edema of congestive heart failure, 630-633  
 after exercise, 92  
 in myocardial infarction of elderly subjects, 212-213  
 and pericarditis, 33, 37

ventricular filling, in pulsus alternans, 62

volume displacement, left ventricular work calculated as, 1007-1009

**Pressure curve**  
 in atrial fibrillation, 509-512  
 in constrictive pericarditis with atrial flutter, 509  
 in hypertensive heart disease and pulsus alternans, 61  
 pulmonary artery, right ventricular  
 in atrial flutter-fibrillation, 511  
 in auricular fibrillation, 865, 867

pulmonary capillary  
 in cardiopulmonary disease, 931  
 in mitral lesions, 930

in rheumatic heart disease with aortic insufficiency, 61  
 right atrial and pulmonary artery, simultaneous, in flutter-fibrillation, 511, 512

**Pressure gradient**  
 arterioventricular after valvulotomy, 77, 79  
 in atypical tetralogy of Fallot, 235

**Pressure gradient** (*Cont'd*)  
blood viscosity influence on, 1106

**P-R interval**  
influence of cardiac potassium quotient on, 657  
influence of, on first heart sound in arterioventricular block, 1090  
in mitral commissurotomy, selection for, 14-16  
prolongation of, and digitalis, 121

**Priscoline**  
and coronary insufficiency, 938  
temperature response to, in joint, muscle and skin, 1101

**Procaine amide**  
extracardiac sites of action of, 937-938  
for ventricular paroxysmal tachycardia due to digitalis poisoning, 301

**Prodromal syndrome**, of myocardial infarction, 753

**Prostigmine**, influence of, on ventricular fibrillation due to focal cooling, 620-623

**Protein**  
of aortic intima in atherosclerotic areas, 683  
c-reactive, as diagnostic aid in coronary disease, 735  
in serum transaminase of rheumatic fever, 795-805

**Proteinuria** vs. retinal vascular reactivity, arterial and venous, 65, 67

**Prothrombin**  
activity and concentration of, in serum-induced thrombosis response to Dicumarol and heparin, 554-555  
adsorbing salts, effects on coagulation, 648

**Pseudobrucine**, 220

**Pteroylglutamic acid**, transitory maternal deficiency, pathogenesis of cardiovascular abnormalities in fetal rats following, 750

**Pulmonary artery**  
absence of right, and ventilation, 651  
in atypical tetralogy of Fallot, 232, 234-237  
commissure, nomenclature for, 730  
congenital absence of main branch of, 650-651  
hypertension and increased pulmonary resistance, 316  
pressure  
measurement of, 940  
and mitral surgery, 7-29  
in patent ductus arteriosus, 1086  
response to left atrial pressure in induced mitral stenosis, 932  
and simultaneous electrocardiogram - ballistocardiogram recordings, 858-867  
pulse pressure, in atrial fibrillation and flutter, 508-518

stenosis of, 1102  
electrocardiography in, 1085  
experimental, 314, 692  
intracardiac left - to - right shunt with, 652  
muscular contraction in infundibular region as mechanism of, 764-765  
and opacification of coronary sinus, 203  
redistribution of systemic blood in, 649  
with ventricular septal defect, 752, 789, 994-1004, 1085

**Pulmonary valve**  
anaerobic cellular metabolism in anoxia from circulatory impairment, 725  
infarction, and pericarditis, serum transaminase levels in experimental, 712  
insufficiency of, and radioiodine, 718  
stenosis of  
electrical axis in 177 cases of, 605-606  
with intact interventricular septum, 699

**Pulmonary vascular obstruction syndrome**, 316

**Pulse**, jugular, double A wave of, 711

**Pulse pressure**  
abnormal phase II during Valsalva maneuver in heart failure, 686  
and age of subject, 561, 571  
and cardioaortic fistula, 823, 825  
central and peripheral relationship between, in aortic stenosis, 791  
left atrial in mitral valvular disease, 715  
in pericarditis, 33, 37  
and pericardial effusion, 142  
pulmonary artery, in congestive heart failure, 515

**Pulse rate**  
and heart block, chronic complete, in dogs, 260-261  
femoral, 263

**Pulseless disease**. *See* Takayasu syndrome

**Pulsus alternans**  
in congestive heart failure, 60-62  
and digitalis, 62

**Purpura**, thrombocytopenic, and quinine, 937

**P vector loop**, differential vectorcardiography for, 768

**P wave**  
in calcification of pericardium, 47, 49, 50  
cardiac potassium quotient influence on, 657  
in dysrhythmias of coronary sinus, 657  
left axis of, in tricuspid atresia and single ventricle, 614  
negative, ectopic auricular contractions with, after QRS complex, in total heart block, 143

[Pressure gradient-Quinidine]

**Pyelonephritis**, and hypertensive vascular disease, masquerading of, as toxemia of pregnancy, 704

**Pyemia**, staphylococcal, and cardioaortic fistula, 825

**Pyramidon**, in postcardiotomy syndrome, 696

**Pyruvate**  
metabolism  
cardiac, in myocardial ischemia, 758  
myocardial, 637-646

**Q interval**, ballistocardiogram, length of in men vs. women, 874-875

**Q-R interval**, in tricuspid atresia and in single ventricle, 616-618

**QRS**  
deflection, 50, 51  
deflection in  $V_5$  in tricuspid atresia and single ventricle, 615-618  
electrical axis of, nomenclature, 604-605, 609  
measurement of duration of variability of, 679

**QRS complex**  
in echinococcus disease of left ventricle, 526-528  
in mitral insufficiency kinetocardiogram, 280-283  
new empirical formula for opposite changes of, 658  
prolonged, value of adjusting Q-T duration for, 739  
and RS-T segment  
changes in, following coronary artery occlusion, 135  
and T wave abnormalities in presence of normal, 787  
from  $V_1$  to  $V_5$  in left axis deviation, in tricuspid atresia and single ventricle, 615-618  
voltage, 47, 49, 50, 51

**QRS loop**  
form, types 1 and 2 in frontal, sagittal, and frontal stereoscopic views, 287-288, 290  
spatial  
and age of subject, 287-290  
orientation and magnitude of, 287-289

**QRS wave**  
in echinococcus disease of left ventricle, 523, 526

**Q-T interval**  
duration of systole at slow ventricular rates, 135  
in tricuspid atresia, 618

**QT<sub>c</sub>**  
formula for calculation of, 687  
prolongation of, in rheumatic heart disease in children, 783-784

**Quinidine**  
for atrial fibrillation, 782  
supporting role of digitalis in, 787  
depression of heart by, and treatment for, 1099  
and/or digitalis bodies for atrial

flutter conversion to sinus rhythm, 513  
and irreversible cardiac depression due to adenosinetriphosphatase activity in rat, 767

**sulfate**  
extracardiac sites of action of, 937-938  
and quinine, as coronary vasodilators, 793

**Quinine**  
and quinidine sulfate as coronary vasodilators, 793 and thrombocytopenic purpura, 937

**Q wave**, in left ventricular leads, in tricuspid atresia and single ventricle, 618

**Rabbit**  
arteriovenous shunt and cardiac lesions, 685  
heart muscle, creatine content of biopsied, 781  
hypercholesterolemia in, and heparin, 305  
hypertensive of hybrid strains, development of, 312

**Radiation**  
therapy with, and pericarditis, 31  
ultra-violet, vascular responses in skin injury due to, 1099

**Radiochromium**, for determining variations in blood volume of healthy males, 787

**Radioisotopes**, colloidal, disappearance rate of, and liver blood flow, in cirrhosis, 932

**Radiography**, cardiovascular, motion in, 1034-1041

**Radioiodine**  
for incapacitated euthyroid cardia, 937  
in paroxysmal tachycardia, 713  
in pulmonary insufficiency, physiological changes seen after use of, 718  
urinary excretion of, in tests of thyroid function, 136

**Radiology**  
in cardiac aortic fistula, 824  
in echinococcal heart, 520-528

**Radiosodium**, space, during treatment in congestive heart failure, 899, 900

**Rat**  
adrenalectomized, hypertension in, 313  
cardiac malformations with induced congenital transposition complexes, 707  
cardiovascular disease in, 1093  
cardiovascular-renal lesions in, 776  
congenital cardiovascular abnormalities in offspring, and diet, 750  
congenital transposition complexes, experimental, with malformation in, 707  
hypertension induced in with desoxycorticosterone and/or cortisone, 138  
and Pitressin, 139

salt and water balance of, 709-710  
mobilization of fat in, and cortisone, 144  
renal shunt in, 140  
scoliosis and hernia in, due to diet, 185-186

**Rauhimbine**, 221

**Rauwiloid**, added to Veriloid in hypertensive patient, 137

**Rauwolfia serpentina**  
alseroxylon fraction of, for arterial hypertension, 732  
for coronary disease, 739  
therapy in hypertension, 137, 700  
review of the literature, 221-225  
*See also* Reserpine

**Raynaud syndrome and corticosteroid**, 918

**Red blood cell**  
agglutination in malarial infestation, plasmodial arteritis due to, 1066  
derived volume of, in myocardial infarction of elderly subjects, 212

**Reflux**, coronary and vena cava cineangiography in study of, 199-205

**Renin**  
and antirenin, treatment of spontaneous or essential hypertension with, in dogs, 786  
renal function response to, 147

**Rescinnamine**, alkaloid, clinical and renal hemodynamic effects of, in arterial hypertension, 732

**Resection**  
for aneurysm and occlusive diseases of aorta, 947  
of aortic arch using vessel couples, 710

**Reserpine**, 221  
and chlorpromazine effects of, on central autonomic vaso-motor mechanisms, 717  
for hypertension, 136, 138, 139, 694-695  
and ganglion blockers, combination therapy with, in hypertension, 698  
and/or hydralazine or hexamethonium, 1094  
and mental depression, 929  
*See also* Rauwolfia serpentina

**Resistance**  
peripheral  
in coronary shock, experimental, 676  
determinants of, 759  
after ganglioplegic agents, 934  
and age of subject, 570-575  
after exercise, 217-218  
pulmonary arterial, 316  
following exercise, 217-218, 1102-1103  
renal vascular  
and ambulation, position, in hypertension, 928-929  
effect of vasopressor agents on, during shock, 99, 101

vascular, influence of shock on, 931

**Respiration**  
and alkaloids, ajmaline vs. serpentine groups, 221  
Cheyne-Stokes, oximeter study in, 933  
and circulation after bilateral glossopharyngeal nerve section in man, 692  
and cor pulmonale, 783  
of heart muscle slices, effect of cardiac steroids and epinephrine on, 310  
of newborn infants, and hypoxia, 1104  
and pericarditis, 33  
and tract infection, 31  
positive-negative pressure, circulatory dynamics of venous return during, 146

**Rheopletysmography**, digital, 675

**Rheumatic disease**  
advances in diagnosis of, 942  
and aortic insufficiency in pulsus alternans, 60-61  
in children  
QT, in prognosis of, 783-784  
and youth, 944  
hemodynamics of  
in atrial flutter, 508  
in congestive failure, after cortisone, 696  
of mitral commissurotomy, 20-22  
murmur in early, 941  
oxygen consumption during exercise in, 774  
and pericarditis, 30, 41  
schemas of, 27  
and serum glutamic oxalacetic transaminase, 800, 802  
postcardiotomy syndrome with, ACTH and cortisone in, 696  
surgery for, 947  
and blood determinations, 946  
vectocardiographic patterns in fifty-six autopsied cases, 788

**Rheumatic fever**  
and corticotropin  
adrenal response, 148  
and cortisone, 928  
sodium and weight changes due to, 891-896  
antibiotics for prevention of, 945  
arteritis associated with, 1066  
diagnosis and treatment of, 942  
in large southern hospital, 740  
and use of digitalis, 291  
epidemiology of, in Miami, Florida, 769  
hormone therapy for, 943  
17-hydroxycorticosteroids in, 943  
and oxytetracycline therapy of streptococcal sore throat, 1108  
prevention of, dibenzylethylenediamine, dipenicillin G for, 148  
rheumatic activity test in, 945  
and rheumatic heart disease in children and youth, 944

## INDEX

**Rheumatic fever** (*Cont'd*)  
and serum glutamic oxalacetic transaminase, 754, 795-805  
and systemic lupus erythematosus, signs of, 908  
treatment of, 941  
streptococcal infections for prevention of, 147-148

**Rhythm**  
abnormal, in mitral stenosis, 76-77  
cardiac, and endotracheal intubation, 315  
conduction, and sympathomimetic drugs, 794  
ectopic, effect of potassium chloride on, 678  
idioventricular, in surgically induced complete heart block, in dog, 83-84

**RI wave**  
and RJ wave, abnormal ballistic, in mitral stenosis, 859-860, 865-867

**Roentgenogram**  
chest,  
in atypical tetralogy of Fallot, 231-234  
in pericarditis, 33-35  
costophrenic septal lines on, in pulmonary venous hypertension, 807-811  
of left ventricle, echinococcosis disease of, 521, 522  
in mitral commissurotomy, 25-26  
in pulmonary stenosis and ventricular septal defect, 995-996

**Roentgenography**  
in cholesterol pericarditis, 194-197  
in de-epicardialization for angina pectoris, 959  
in dissecting aneurysm produced by diet, 187, 188  
in mitral stenosis and mitral commissurotomy, 25, 26

**Roentgenology**  
in recognition of echinococcosis disease, 525  
in sphincter mechanism of caval and pulmonary veins, 150  
switch-tubes for clarification of blood and contrast substance, 1038-1041

**Roniacol**, and coronary insufficiency, 938

**RS-T segment**  
in calcification of pericardium, 47, 48, 50  
in echinococcosis disease of left ventricle, 523, 526-528  
in intermediate coronary artery syndrome, 656  
in presence of QRS complex, 787 following coronary artery occlusion, 135  
in right precordial leads, 135  
and T wave pattern abnormalities in presence of normal QRS complexes, 787

**R wave**  
in echinococcosis disease of left ventricle, 521-523, 526-528

in left ventricular hypertrophy, 820

**Rupture**, myocardial, associated with anticoagulant therapy, 309

**Salicylate**, for rheumatic fever, 941

**Saliva**, electrolyte concentrations in, 1094

**Salt**  
urinary hypertonic excretion, effect of exercise on, in congestive heart failure, 94  
and water balance in experimental hypertensive rats, 709-710

**Sarpagine**, 221

**Scleroderma**  
arteritis associated with, 1066  
cardiovascular manifestations of, 911-914  
honeycomb lung and mitral stenosis in, 1108  
and pericarditis, 31

**Sclerosis**  
medial calcific, 1065  
progressive systemic and corticosteroid, 918

**Scoliosis**, and hernias, in white rats due to diet, 185-186

**Scopolamine**  
preliminary injection of, effect of, on epinephrine in thyrotoxic and euthyroid patients, 145

**Septum**  
atrial defect of  
and blood flow, 1000-1002  
in children, 651  
closure of ostium types of, 681-682  
electrocardiography in, 786, 1085  
and hypothermia, 128-129  
hypervolemic murmurs in, 761  
pulmonary arterial pressure, 1086  
and surgical repair, 756

atrioventricular defect of, and movements of coronary sinus, 202

auricular defect of, electrical axis in 224 patients with, 605-606

interatrial defect  
nonlycotic heart disease with heart failure due to, 124-131  
and opacification of coronary sinus, 203

interventricular defect of, 754-755  
and coarctation of aorta, 1082  
congenital, 132  
ventricular and auriculo-ventricular node, communication between terminal part of, in fetal heart, 180

ventricular defect of  
in atypical tetralogy of Fallot, 237  
with arteriovenous shunts, 994-1003

bidirectional shunting through, 764-765  
in congenital heart disease, 1085  
with defective septal leaflet of tricuspid valve, 813-818  
electrical axis in 348 patients with, 605-606, 607, 610  
electrocardiogram in, 1090  
with, pulmonary stenosis and left-to-right shunt, 752, 789, 994-1003, 1085

**Serotonin**  
antagonist, in treatment of carcinoid-cardiac syndrome, 5-6  
in pentobarbital anesthetized dogs, 143

**Serpasil**, in hypertensive disease, 136, 138, 139

**Serum**  
iron in, after coronary occlusion and traumatic injuries, 133  
lactescence of, relation of neutral fat to, 1097  
lipoprotein in  
in advanced coronary artery disease, 695  
gonadal steroid influence on, 688  
sodium in  
and ACTH, in rheumatic fever, 894  
in congestive heart failure during treatment, 900-901  
total solute response to exercise, 91-92, 93

**Serum sickness**  
cardiovascular manifestations, 915-916  
steroid therapy for, 918

**Shock**  
arterial blood pressure response to, 931  
cerebral hemodynamics and metabolism during, 931  
coronary, experimental, 676  
hemorrhagic  
and antibiotics, 931-932  
bacterial factor in, 933-934  
irreversible, ACTH and cortisone in, 1091  
norepinephrine in, 314  
metabolic changes in heart muscle due to, 933  
and myocardial metabolism, 641, 933  
and vasopressor agents, 314  
intra-arterial blood transfusion, in treatment of, 140  
and myocardial infarction, adrenal insufficiency in, 745  
normovolemic, and vasopressor agent, 314  
prolonged, recovery of patient in, after arteriovenous, 1100  
renal hemodynamics after vasopressor agents, 96-107  
surgical, intravenous vasopressors in, 939  
tourniquet  
electrolyte shifts and electrocardiographic changes during, 141

## [Rheumatic fever-Shock]

injury and fluid accumulation due to, 933

**Shoulder-hand syndrome**, sensory nerve ischemia as part of, 737

**Shunt**  
arteriovenous and cross circulation, cardiac lesions in rabbits produced by, 685  
hemodynamic and autonomic effect of, 695  
pulmonary stenosis and ventricular septal defect with, 994-1003

circulatory, direct recording ear oximeter for evaluating, 788  
interventricular, in atypical tetralogy of Fallot, 235  
left-to-right  
intracardiac, with pulmonic stenosis, 652  
with pulmonic stenosis and ventricular septal defect, 789

left ventricular-right atrial, syndrome, 813-818

pulmonary artery, superior vena caval pressures after, 651  
renal, in rats, 140

**Silicosis**, and pericarditis, 31

**Sinthrom**, in thromboembolism, 771

**Sinus**  
aortic, aneurysms of, 700  
arrhythmia, and change in posture, 143  
carotid, and Takayasu syndrome, 140  
coronary  
arterialization of, 677  
electrocardiography of, 310  
reflux opacification of, cine-angiography in visualization of, 199-205  
visualization of graft, and venous pathways of heart in living dogs, 308

**Sinus rhythm**  
abnormal ballistic waves in, 860  
atrial flutter converted to hemodynamics in, 514-518  
and hyperventilation, 272  
and idioventricular rhythm in surgically induced complete heart block, in dog, 83  
in mitral commissurotomy, selection for, 14-16  
and prostigmine and acetylcholine for ventricular fibrillation, 621-623

**Sinus tachycardia**, in mitral commissurotomy, selection for, 14-16

**Sitosterol, beta**  
and brain extract, as hypocholesterolemic agent, 727-728  
in coronary artery disease, cholesterol response to, 709

**Skeleton**  
deformities, due to dissecting aneurysm, 190, 191  
involvement of, in Paget's disease, 216-218

**Skin**  
blood pressure in minute vessels of, 1105  
exposure of, to radiant heat, heart rate following, 1103  
flushing of, with changing mottled cyanosis due to carcinoid-cardiac syndrome, 1-6  
injury to, by histamine or ultraviolet radiation, vascular responses in, 1099  
involvement of, in dermatomyositis, 914-915  
temperature of, following Priscoline injection, 1101

**Skull**, involvement of, in Paget's disease, 216-218

**S-methyl-iso-thiourea**, in hypertension, 546, 974-979

**Smoking**  
ballistocardiogram in response to, 783  
cardiovascular responses, 767, 1097  
electrocardiogram after, 315-316 by normal persons, 1098

**Sodium**  
azide, clinical use of, 771  
balance during recovery from congestive heart failure, 1057-1063  
dietary, electrolyte changes due to restriction of, 625-629  
200 mg., 654  
diuresis, during corticotropin therapy of nephrotic syndrome, 1092  
exchangeable  
in congestive failure, 703, 897-902  
method for determining, 898  
with potassium, after nor-epinephrine, 144  
in rheumatic fever after ACTH therapy, 891-896  
in valvular lesions of heart, 1087, 1095  
excretion of  
adrenal medullary hormone, action on, 1092  
and nonshocking hemorrhage, 1093  
during shock, 99, 101, 104  
renal, 724  
in valvular lesions, 1087, 1095  
radioactive, transcapillary migration through pulmonary vascular bed, 734  
retention, 703  
vs. venous pressure in edema of congestive failure, 630-633  
restriction, in hypertensive patients, 137-138  
serum concentration  
after exercise, 91-92  
in myocardial infarction of elderly subjects, 210-213

**Sodium amytal test**, in hypertension following intravenous reserpine, 139

**Sodium bicarbonate**, and thermol sweat, electrolyte composition, 1101

**Sodium borate**, toxicity of, myocardial changes reflected in electrocardiogram, 1043-1046

**Sodium chloride**  
and basal metabolism, 311  
urinary excretion of, in edematous subjects, 1099

**Sodium nitrate**, diuretic effect of, vs. other diuretic agents in dogs, 722

**Space**, extracellular, measurement of, 940

**Spasm**, coronary artery, electrocardiography in, 656

**Spectrophotometric assay method**, of serum glutamic oxalacetic transaminase, 162, 167

**Spinal cord**  
section, high, hemodynamic functions after, 934

**Spleen**  
congenital absence of, with congenital heart disease, 649  
involvement of, in systemic lupus erythematosus, 904-908

**Splenectomy**, hematocrit and blood volume following, 1103

**Spondylitis**, rheumatoid, and aortic insufficiency, 770

**Standstill**. *See Arrest*

**Staphylococcus albus**, endocarditis due to, 1086

**Steatorrhea**, idiopathic, myocardial changes due to potassium deficiency in, 935

**Stenosis**  
aortic, 946  
calcific, electrocardiography in, 309  
calcific, serum cholesterol in, 150  
central and peripheral arterial pressure pulses in, 791  
congenital aortic, 695  
mitral  
arterial pulse pressures in, 932  
Aschoff bodies in left auricular appendages in, 1107  
ballistocardiograph in, 858-867 and cardiac catheterization, 70-71  
cardiac cycle of left side of heart, 73-75  
clinical and graphic, 718  
comparison of methods for measurement of, 1107  
with congestive heart failure, and digoxin, 726  
devolutionary pattern of isolated, 740  
electrocardiography in, 73-80  
exercise tolerance test in, 946  
hepatic circulation and function in, 699  
implication of first sharp sound in, 753  
kinetocardiograms in, 278-285  
and mitral valvulotomy, 70-71 and opacification of coronary sinus, 203

**Stenosis (Cont'd)**

- oxygen removal ratio, after exercise, 774
- and pulmonary artery pressure, 858-867, 932
- pulmonary hemosiderosis in, 944
- pulmonary hypertension in, 1107, 1108
- rheumatic auriculitis associated with, 714
- right heart strain in, 1106
- roentgenograms of, 807-811
- and surgery, 8-9, 13, 680, 943
- technique for opening of, 948
- test for alteration of cardiodynamics of, 714
- with valvotomy, angiogram in, 778
- vectorcardiography in, 1106
- water excretion, after exercise, 92
- pulmonary, 1102
- in atypical tetralogy of Fallot, 235
- electrocardiographic alterations in, 1085
- experimental, in dogs, 314
- experimental, surgical creation of, 692
- with interatrial septal defect and opacification of coronary sinus, 203
- intracardiac left - to - right shunt with, 652
- muscular contraction in infundibular region as mechanism of, 764-765
- redistribution of systemic blood flow in, 649
- with ventricular septal defect, 752, 789, 994-1003, 1085
- pulmonary valvular
- electrical axis in 177 cases, 605-606
- with intact interventricular septum, 699
- tricuspid
- hemodynamics of, 792
- murmurs of, 761
- in selection for mitral commissurotomy, 14-16
- valvular, congestive failure due to and use of digitalis, 291
- Steroid**, individual, in mixtures, paper electrophoresis for identification of, 1104
- Stokes-Adams syndrome**
- complete atrioventricular dissociation studies in, 729
- molar sodium lactate, in treatment of, 678
- sympathomimetic drugs for, cardiac rhythmicity and conduction after, 794
- Strain**
- electrocardiogram vs. vectorcardiogram, 657, 1106
- intracardiac pressure values in, 656
- Streptococcus**
- group A
- factors of, 943
- during mitral commissurotomy, 780-781
- infections of rheumatic fever, and penicillin, 945
- Streptokinase**
- in experimental arterial thrombi, in dog, 145
- intravenous continuous vs. intermittent infusion, 1106
- Streptomycin**, for enterococcal bacterial endocarditis, 905
- Stress**
- psychological, consistency of response to, in prehypertensives and hypertensives, 719
- workmen's compensation laws pertaining to, 656
- Stroke volume**
- and age of subject, 560-562
- in atrial flutter, 508, 514-515
- new regression equations for estimation of work, 1016-1020
- in surgically induced complete heart block in dog, 84-85
- Strophantidin** acid, and epinephrine, respiration response to, of heart muscle slices, 310
- Strophantidin K**, 118
- extracardiac sites of action of, 937-938
- Strophanthus gratus**, 118, 122
- ST-T segment**
- cardiac disturbances due to blood boron concentration reflected by, 1043-1046
- in coronary sinus catheterization, 657
- epicardial depression, experimental and clinical, primary, 762
- influence of cardiac potassium quotient on, 657
- and T-wave inversion, electrocardiographic changes in following Adrenalin, 136
- ST-T wave**, changes of pericarditis following surgery on heart, 165
- Surgery**
- for angina pectoris, 955-961
- on aortic valve, left heart catheterization in selection for, 680
- in atrial septal defect, 736, 756
- ostium primum and ostium secundum types, 681-682
- for patent ductus arteriosus, in infants and children, 766
- in coarctation of aorta
- with complications, 1080-1083
- during pregnancy, 650
- direct repair of congenital intracardiac defects, 787
- electrocardiography in cardiac, 657
- cardioaortic fistula, 819-825
- for heart block, technic for complete, in dogs, 259-260
- in hypertension, 311-312
- mitral commissurotomy, 7-29
- mitral and/or aortic valve, left heart catheterization in selection of patients for, 680
- in mitral insufficiency, total circumferential suture of mitral ring, 712
- and mitral stenosis, 943
- in occlusive coronary disease, 677
- in noncyanotic heart disease with heart failure, 128-129
- for popliteal aneurysms, 742
- in rheumatic heart disease, 947
- blood volume determinations in, 946
- technique for production of complete heart block in dogs, 260, 268-269
- S wave**, in left ventricular hypertrophy, 820
- Sympathectomy**
- extremity response to exercise after, 934
- lumbar, in treatment of hypertensive ischemic ulcers of leg, 239-241
- malignant hypertension treated by, ten year follow-up of, 749
- renal, and renal vascular resistance, 142
- Sympathetic nervous system**, humoral mediators in, pharmacological and chemical study of, 145
- Syphilis**, arteritis due to, 1066
- T-1824**
- in circulation time vs. age study, 561-565
- and cuvette oximeter in intracardiac shunts, 999, 1003
- early disappearance of, from circulation of rabbits, 1104
- vs. methylene blue in study of heart disease, 706
- and sodium thiosulfate space volume distribution of, in myocardial infarction of elderly subjects, 211-213
- Tachycardia**
- paroxysmal
- atrial, 292, 298
- auricular, and hyperventilation, 273-276
- supraventricular, phenylephrine hydrochloride in, 1101
- ventricular, 273-276, 292
- sinus, and use of digitalis, 292-293
- supraventricular and ventricular electrocardiographic differentiation of, 1090-1091
- and Takayasu syndrome, 140
- ventricular
- digitalis for, 292
- idioventricular pacemaker in treatment of, 729
- Takayasu syndrome**, 1067
- description of, 139-140
- Taussig-Bing syndrome**, complicated by aortic coarctation, 305-306
- Teeth**, bacteremia following extraction of, systemic and local antibiotic therapy in prevention of, 761

**Teleoerentgenogram**, in arteriosclerosis, primary pulmonary, 687  
in syndrome of left ventricular-right atrial shunt, 814, 816

**Teleradiography**, in cardioaortic fistula, 820, 825

**Temperature**  
cooling; and heart, 939  
focal, arrhythmias caused by, 1091  
and glucose utilization for contractile force by cat heart muscle, 1105

**Test**  
of methods and formulas for cardiac work estimates, 1007-1020  
transaminase, for myocardial infarction, 729

**Tetraethylammonium chloride**, and coronary insufficiency, 938

**Tetralogy of Fallot**, 789  
atypical noncyanotic form with increased lung vascularity, 230-237  
cardiac catheterization in diagnosis of, 132  
coronary sinus reflex in, 202, 203  
electrical axis in 845 patients with, 605-606, 609  
electrocardiographic alterations in, 1085  
review of unusual, 723

**Theory of Kent**, 176-183

**Thevetin**, and epinephrine, effect of on respiration of heart muscle slices, 310

**Thiamine**, concentration in heart, liver, and kidney, in congestive heart disease, 306

**Thiocyanate**  
in circulation study in forearm, 772  
ion and heavy water, transcapillary migration of, in pulmonary circulation, 653

**Thoracotomy**, transaminase levels following, 164-167

**Thorax**, movement of, in congenital heart disease, 869

**Thorazine**, and *Rauwolfa* serpentina, combination of in treatment of hypertension, 700

**Thorn test**, and heavy physical exertion reactions, in analysis of physical insufficiency syndromes, 146

**Thrombin**, prothrombin activated to, by removal of anticoagulant, 648

**Thromboangiitis obliterans**, 1066  
and occlusive auricular thrombi, 256-257  
superficial phlebitis in, phenylbutazone for, 834, 835

**Thrombocytopenic purpura**, thrombotic, 1067

**Thromboembolism**  
complications in mitral commissurotomy, 984  
after age of forty, 983

**Thrombophlebitis**  
of peripheral veins as manifestation of systemic disease, 780  
as possible clue to cryptic malignancy, 791  
superficial, in extremities, treatment of with phenylbutazone, 833-836

**Thrombosis**  
cerebral vascular and acute myocardial infarction, manifestation of, 701  
coronary, workmen's compensation laws pertaining to, 656  
in femoral artery, of dog, enzymatic dissolution of, 145  
following trauma to limb, 949  
intravascular and effects of Dicumarol and heparin, 553-555  
mural, possible relation to rheumatic auriculitis associated with mitral stenosis, 714  
occlusive, and cyanosis, heart failure and peripheral vascular collapse, 256  
of renal veins with nephrotic syndrome, 950  
venous, and blocking effect of heparin, 553-555

**Thrombus**  
method for inducing, in rabbit ear vein, 784  
occlusive auricular angiographic demonstration of, 247-249  
ball-valve, pedunculated, and massive, 250-257  
pedunculated, of right auricle, 255-257  
subacute bacterial endocarditis arising in, following myocardial infarction, 242-245

**Thyroid**  
function, radioiodine tests for assessment of, 136  
hormones, epinephrine and nor-epinephrine, hemodynamic and metabolic interrelationships in activity of, 684

**Thyroidectomy**, and aortic dissection, 1071

**Thyrotoxicosis**, and use of digitalis, 293, 294

**Tietze's syndrome**, in chest pain diagnosis, 1101

**Tissue**  
adipose, around heart, vectorcardiograms of beat in lead systems, 656  
anaerobic metabolism of, in valvular heart disease, 725  
cardiac conduction, distribution of, 763  
changes in, due to heart block, 88  
cultures, absorption of colloidal fat suspensions by vascular cells growing in, 738  
extraction of heparin from, 305  
metal concentrations, metabolic effects, 716  
pericardial, thickened, and QRS voltage, 50

perfusion reduction in, due to age of subject, 573-575  
potassium, sodium and water of, in hypertension, and desoxycorticosterone and/or cortisone, 313  
weight change and extracellular water change in edema due to congestive heart failure, 632

**T loop**, form, orientation and magnitude of spatial, and age of subject, 289-290

**Tobacco**  
ballistocardiogram after smoking, 783  
electrocardiogram after smoking, 315-316  
and cardiovascular diseases, 1097  
and cardiovascular system responses, 767  
smoking by normal person, 1098

**Toe**, ischemic, blood flow and oxygen tension in, effect of oscillating bed on, 705-706

**Tomography**, in echinococcus disease, of left ventricle, 524, 525

**Tonephin**, following oxygen therapy, in congestive heart failure, 652

**Toxemia**  
postpregnancy, neurogenic component in hypertension due to, 548  
of pregnancy  
analysis of 1051 cases and recognition of hypertension and pyelonephritis masquerading as, 704  
cardiac enlargement and venous pressure, after digitalis, 293

**Toxicity**  
cardiac, and nitroglycerine, 598-601  
digitalis, 119, 121  
manifestations of, 298-300  
management of, 300-301  
produced by Mercurate, mercury analysis, 54

**Tracheotomy**, and cardiovascular collapse in bulbar poliomyelitis, 987

**Transaminase**  
serum glutamic oxalacetic and anoxia, 749  
and coronary insufficiency, 736  
electrocardiographic, correlation with, 756  
and heart muscle damage, 735  
and myocardial infarction, 161-167, 729, 756  
in rheumatic fever, 754, 795-805  
spectrophotometric assay, 162, 167

**Transfusion**, irreversibility to, in hemorrhagic shock, 931-932, 933-934

**Transplant**, vascular, effect of atherosclerosis on, experimentally induced, 690

**Trauma** chemical, mechanical and physical arteritis due to, 1067 due to injuries, serum iron after, 133 to limb, arterial spasm following, 949 and pericarditis, 31, 37 resulting from aortic dissection, 1072 workmen's compensation law pertaining to, 656

**Tricuspid valve** defective septal leaflet of, with high ventricular septal defect, 813-818 insufficiency of in atrial fibrillation and atrial flutter, 518 in selection for mitral commissurotomy, 14-16 section of Bundle of His through, 82, 88 stenosis, hemodynamics of, 792

**Triethanolamine trinitrate**, for angina pectoris, long term study of, 720

**Trilogy of Fallot**. *See* Tetralogy of Fallot

**Tromexan** and blood flow, 648 and circulation, 648 and Dicumarol in recanalization of thrombosed veins, 784 in management of myocardial infarction, 656

**Trypsin**, chymotrypsin, and plasminogen activators for dissolution of experimental arterial thrombi in dog, 145

**Tryptophan**, abnormal metabolism of, and cardiovascular disease associated with malignant carcinoid, 776

**Tuberculosis** and pericarditis, 30-31, 37, 40, 41 cholesterol, 193, 197 pulmonary, ballistocardiogram in, following lung collapse therapy, 927

**Tubule**, Mercurophylline and Mercuhydrin, enzymatic inhibitions due to, 930-931

**Tumor** carcinoid in connective tissue, due to carcinoid-cardiac syndrome, 3 vascular, hereditary, of nervous system, 306

**T vector**, location of termini of, in frontal and left sagittal planes, 288-289

**T-wave** and Adrenalin changes, relationship of in anxiety state, 136 in calcification of pericardium, 47, 48, 49, 50 electrocardiographic and three-plane ballistocardiography, 874 deflection of electrogram and repolarization of muscle membrane, 134 in echinococcosis disease of left ventricle, 521-523, 526-528

effect of smoking or injection nicotine on, 315-316 after heart surgery, 165-166 influence of cardiac potassium quotient on, 657 in intermediate coronary artery syndrome, 656 inversion in lead  $V_2$  as indication for cardiovascular examination, in male, 134 new empirical formula for opposite changes of, 658 of post extra-systolic complexes, changes in and detection of organic heart disease, 734 in presence of QRS complex, 787

**Typhus**, and use of digitalis, 291

**Ulcer** hypertensive ischemic, lumbar sympathectomy in treatment of, 239-241 stasis, antibiotic powders and dry dressings for, 937

**Urea**, urinary excretion of, after exercise, 91-93

**Uremia** cardiac changes in mechanism of, 711-712 and pericarditis, 31

**Urine** antidiuretic substance in, in cardiac patients with oliguria, 652 coproporphyrin secretion in, in myocardial infarction and pulmonary embolism, 1096-1097 excretion and renal artery compression, 147 flow of after benzodiazepine on, in pheochromocytoma, 689 in congestive failure, 92-93 after exercise, 91 and mercurate, 54 protein in and venous reactivity in hypertensive subjects, 65, 67 sodium-retaining activity of material extracted from, in relation to sodium balance and edema, 310 volume during hemorrhagic shock, 99, 101

**Uterus** carcinoma of, phenylbutazone for superficial phlebitis in, 835

**U wave** hemodynamic interpretation of, 134

**Uzarin** and epinephrine, effect of on respiration of heart muscle slices, 310

**Vagotomy** experimental findings and results of in dogs, and neurogenic factors in coronary disease, 770

**Valsalva procedure** and aortic dissection, 1072 in heart failure, 686

**Valsalva sinus**, rupture of, into right ventricle, cardio-aortic fistula due to, 819-825

**Valve** aortic. *See* Aortic valve functional disease of, congestive failure due to, and use of digitalis, 291 lesions of, and sodium, exchangeable body and excretion in, 1087, 1095 mitral. *See* Mitral valve pulmonary. *See* Pulmonary valve semilunar and commissures, suggested nomenclature for, 730 tricuspid. *See* Tricuspid valve

**Valvulotomy** and auricular fibrillation, 76 blood flow after, 77, 79 slope volume and cardiac output in, before and after exercise, 728

**Varicose vein**, superficial phlebitis in phenylbutazone for, 834

**Varidase**, clinical use of, in lysis of intravascular clots, 779

**Vascular disease** degenerative, retinal vascular reactivity vs. renal function in, 64-67 hypertensive, 1065

**Vascular system** collapse, symptom of occlusive thrombosis, 256 response to heart block, experimental chronic, complete, 86 and vasomotor receptors, 714-715

**Vasculitis**, nodular, 1067

**Vasoconstriction** arteriolar, due to intracranial compression, 888 and central nervous system, 448 and digital, 789-790 mechanism for, 448 due to medullary lesion and viral myocarditis in acute poliomyelitis, 991-992 neurogenic, 449 renal, and Dibenzyline, 104

**Vasodpressor**, hemodynamic response to, 314

**Vasodilator** and blood pressure, 448 effect of *Rauwolfa serpentina* on, 222

**Vasodilator**, coronary long-acting drugs, 169-175, 767 quinine and quinidine sulfate as, 793

**Vasomotor tone**, digital and nasal changes in during cooling, 722

**Vasopressor** hemodynamics after, 314 intravenous, in surgical shock, 939 renal hemodynamic response to, 98-107, 314 in shock renal hemodynamics after, 96-107 surgical, 939

**Vector**, method for orthogonal components of, 838-844

**Vectorballistocardiogram** in frontal, sagittal, and horizontal planes of body, recording of, with cathode ray oscilloscope, 134

**Vectorcardiogram** of beats in different lead systems, normal and premature, 656 dependence on intracardiac pressure valves in right heart strain, 656 vs. electrocardiogram in myocardial infarction, 711 in right heart strain, 657, 1106 spatial in mitral and aortic valvular disease, 770 in normal subjects over age of forty years, 286-290 vs. silent electrocardiogram in myocardial infarction, 711

**Vectorcardiography** differential, for study of P vector loop, 768 general networks for, central terminals in, 838-844 patterns in rheumatic heart disease, fifty-six autopsied cases, 788 precordial, 707 in right bundle branch block, 683

**Vein** azygos, technic of anastomosing to right pulmonary artery, 651 cardiac, cineangiocardiography for visualization of, 202 coronary, effect of Tromexan on blood saturation in, 648 ear, method for inducing thrombi of desired length in, in rabbits, 784 peripheral thrombophlebitis of, as manifestation of systemic disease, 780 pulmonary anomalous, 649-650, 782 ligation of for bronchospirometric determination of function, 733 roentgenologic studies of sphincter mechanism of, 150 retinal, and renal damage in degenerative vascular disease, 64-67 thrombosed, effect of Dicumarol and Tromexan on recanalization of, 784

**Vena cava** left superior, and opacification of coronary sinus, 203 ostia of, and right atrium dynamics, 232 oxygen saturation of superior and inferior, comparison of, to mixed right ventricular blood, 649 roentgenologic study of sphincter mechanism, 150

superior, ligation of at entrance to heart, 651

**Venocstriction**, peripheral, in congestive heart failure, 790

**Ventricle** action potential, 135, 679 and repolarization in heart muscle, 134 arrhythmia digitalis preparations in induction of, 121 ectopic, 718-719 pseudo, in Wolff-Parkinson-White syndrome, 754 sinus, and posture changes, 143 atrioventricular conduction and G deflection, 872-873 depolarization of, in dog, use of epicardial, intramural, cavity and septal leads in study of, 658 fibrillation due to focal cooling, influence of acetylcholine and prostigmine on, 620-623 and myocardial metabolism, 642 prevention of, in hypothermic dog, 768 due to surgery for occlusive coronary artery, 677 treatment of, using capacitor discharge, 315 filling pressure, and pulsus alternans, 61-62 in hearts of fetus and newborn, 178-179, 182-183 hemodynamics after heart block, 739 and hyperventilation, 271-276 inefficiency of excessive rate, digitalis for, 291 infarction of left in anterior and lateral aspects of, 307 of base, 751 left echinococcal disease of, 526-528 implantation of internal mammary artery into, 677 mural thrombus in, 244 preponderance in V<sub>i</sub> in infancy and early childhood, 608-610 pressures and hemodynamics of left side of heart, 69-80 left, failure of and carotid sinus stimulation, 653 dynamics of, during neurogenic hypertension, 757 rejection for mitral commissurotomy due to, 8-9, 13 left, work of and age of subject, 570-575 after heart block, 86-87, 265 methods for estimation of, 1005-1020 left and right atrial shunt syndrome, 813-818 balance of outputs, 140 mural thrombi in, 254, 256 rapid rate, and digitalis, 291-292

right angiocardioogram of, in atypical tetralogy of Fallot, 233 pressure curve, in auricular fibrillation, 865, 867 contractile strength of, and coronary artery pressure in, in dogs, 768 septal defects in atypical tetralogy of Fallot, 237 with arteriovenous shunts, 994-1003 bidirectional shunting through, 764-765 in congenital heart disease, 1085 with defect in tricuspid valve, 813-818 electrocardiogram in, 605-610, 1090 with pulmonary stenosis, 752, 789, 994-1003, 1085 single electrical axis in, 605-610 left, deviation in, 612-618 strain, quantitative estimation of, in limb leads, 658 weight of, and heart block, 87-88

**Veratrosine**, cardiodecelerator action of, 687

**Veratrum viride** with Rauwolfia serpentina, hypotensive action of, 224 response to angiotonin after, in hypertension, 977

**Vessel**, transposition of great, in congenital heart disease, electrical axis in 127 patients with, 605-606

**Virus** and rickettsial infections, arteritis due to, 1066

**Vitamin K**, vs. watersoluble vitamin K, 938

**Vomiting**, due to Mercurate, 58

**Water** changes in metabolism, during recovery from congestive heart failure, 1061 crude, balance in myocardial infarction of elderly subjects, 211 diuresis during corticotropin therapy of nephrotic syndrome, 1092 excretion adrenal medullary hormone action on, 1092 after adrenergic blockade, 1101 after compression of renal artery, 147 in congestive heart failure with valvular lesions, 1087 in edematous subjects, 1099 after exercise, 90-94 and head-down position, 1102 after nephrectomy, influence of adrenal on renoprival hypertension, 310 and nonshocking hemorrhage, 1093

**Water (Cont'd)**

after pentolinium tartrate in hypertension, 690  
position and ambulation effects, in hypertension, 928-929  
renal, and drug therapy, 724  
and vasopressor agents during shock, 99, 101, 104  
extracellular, and weight loss during diuresis, 897  
heavy, and thiocyanate ion transcapillary migration, 653

intracellular, and age of subject, 575  
retention, 631, 703  
and salt balance in experimental hypertensive rats, 709-710  
**WIN 2173**  
pharmacology of, and cardiac effects, 1099  
**Wolff-Parkinson-White syndrome, pseudo-ventricular arrhythmias in**, 754  
**Work**  
and age of subject, 570-575  
after heart block, 86-87, 265  
methods for estimation of, 1005-1020

**Work classification unit, for cardiac patients, significance of**, 724

**Xanthine, diuretic potency of, in congestive heart failure, 1086**

**X-ray**  
anatomy of coronary sinus opacification, and meaning of reflux, 199-205  
mass survey studies in detection of heart disease, 650  
therapy with, constrictive pericarditis after, 936

